



THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301-1200

HEALTH AFFAIRS

JAN 15 2004

The Honorable Duncan Hunter  
Chairman, Committee on Armed Services  
U.S. House of Representatives  
Washington, DC 20515-6035

Dear Mr. Chairman:

The enclosed report responds to Section 723 of the National Defense Authorization Act for Fiscal Year 2000. Section 723 directs the Assistant Secretary of Defense for Health Affairs to submit an annual report on the quality of health care furnished under the health care programs of the Department of Defense. This report covers Fiscal Year 2002.

The report contains a discussion of the use of standard clinical pathways, the use of health report cards, health outcomes, and innovative processes for surveillance and patient satisfaction. The report also highlights the initiatives in the area of pharmacy safety.

Thank you for your continued interest in and support of the Military Health System.

Sincerely,

A handwritten signature in black ink, reading "William Winkenwerder, Jr.", is positioned below the word "Sincerely,".

William Winkenwerder, Jr., MD

Enclosure:  
As stated

cc:  
Representative Ike Skelton

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HOUSE COMMITTEE ON  
ARMED SERVICES

# Report to Congress



Quality of Health Care  
Furnished under the  
Defense Health Program  
FY 2002



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Section 723 of the National Defense Authorization Act for Fiscal Year 2000, Health Care Quality Information and Technology Enhancement, requires an annual report to Congress.

“(e) ANNUAL REPORT – The Assistant Secretary of Defense for Health Affairs shall submit to Congress on an annual basis a report on the quality of health care furnished under the health care programs of the Department of Defense. The report shall cover the most recent fiscal year ending before the date the report is submitted and shall contain a discussion of the quality of the health care measured on the basis of each statistical and customer satisfaction factor that the Assistant Secretary determines appropriate, including, at a minimum, a discussion of the following:

- (1) Health outcomes;
- (2) The extent of use of health report cards;
- (3) The extent of use of standard clinical pathways; and,
- (4) The extent of use of innovative processes for surveillance.”

#### Report Structure

The report is divided into three areas of focus: the foundation for providing high quality care, performance improvement initiatives that address clinical outcomes and processes of care, and the perspectives on quality of care by the Military Health System beneficiary population.

Acronyms used in the report are contained in Appendix A.

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## Executive Summary

### Overview of Effort

The military health system (MHS) is an integrated system comprised of the direct care system of military treatment facilities, hospitals and clinics, and a civilian care component, administered by support contractors which purchase and manage care for DoD beneficiaries in the civilian sector. The MHS serves 8.9 million beneficiaries around the world, operates 75 hospitals and more than 400 clinics, supported by more than 130,000 medical personnel and a \$26 billion annual budget.

The statutory requirements for this report are integrated within the context of the following three dimensions of quality:

1. Are the foundations for providing high quality health care robust?
2. How does the healthcare system function with respect to performance improvement efforts relating to process and clinical outcomes?
3. What are DoD beneficiaries' perspectives on the MHS in terms of quality of health care and administrative services they are entitled to receive?

The data discussed in the report relate primarily to the status of the TRICARE program at the conclusion of FY 2002 as required by statute. However, in some instances more recent data are included where appropriate.

### Foundation for Providing High Quality Care

This section of the report establishes the basis for providing high quality health care.

#### Key findings:

1. Medical/Dental Licensure: Ninety-nine percent of the 11,557 military physicians and 3,256 military dentists are either licensed or in post-graduate training. The few officers who do not currently have licenses are fully supervised while pursuing licensure. The lack of licensure is primarily

related to varying state licensure requirements and the timing of licensure activities which to some extent conflict with officer accession and assignments and is not a reflection on the quality of the providers.

2. Medical/Dental Board Certification: The proportion of military physicians and military dentists who have achieved board certification status exceeds civilian norms, attesting to the high qualifications of military providers. Ninety-three percent of board eligible military physicians are board certified, the highest recorded rate for DoD. More than 62 percent of military dentists are board certified.
3. Graduate Education Programs: All 208 military graduate medical/dental residency programs for which accreditation programs exist are accredited; nearly 50 percent have been granted the maximum period determined by the accreditation agencies.
4. DoD Risk Management Activities and Participation in the National Practitioner Data Bank (NPDB): Paid malpractice claims on behalf of military providers were fewer in number for FY 2002 as compared to FY 2001, and paid malpractice rates per military hospital remain comparable to civilian institutional experience. Processes for assessment of individual claims remain sound and are validated by a rigorous external peer review process. There were 105 reports to the NPDB of healthcare professionals who were determined to have provided care which does not meet acceptable standards, and 33 reports for providers who have had their privileges to practice altered.
5. Joint Commission on Accreditation of Healthcare Organizations (JCAHO) – Accreditation Status: All military hospitals, clinics and laboratories retain JCAHO accreditation, and cumulative grid scores match or exceed those of civilian institutions nationally.

6. ~~Network Credentials Management~~: Some challenges and discrepancies in management of network provider credentials files by managed care support contractors were identified in 2002 and have served as the basis for corrective action plans now successfully being implemented across all regions. Considerable improvements have already been noted and new standards applicable to the new TRICARE contracts will enhance oversight further through the requirement for network accreditation by national accrediting agencies.
7. National Quality Monitoring Program - External Peer Review of Purchased Care: Keystone Peer Review Organization (KePRO) oversight activities reveal broad agreement with contractor utilization decisions and consistency in the identification of quality and utilization concerns. Only small numbers of medical necessity denials are appealed to KePRO, and a majority of these are upheld.
8. DoD Patient Safety Program: The DoD Patient Safety Program continues to mature. Non-attributional reporting is a fundamental component of this program. The initial 10-month view of data reveals that the vast proportion of reported events are medication related and are either near misses (identified before reaching the patient) or events which reached the patient but did not result in harm.
9. The Pharmacy Data Transaction Service: This initiative has identified thousands of potential adverse drug interactions from over 200 million prescriptions tracked resulting in prescription changes in nearly 10 percent of instances where potential for harm has been identified.
10. Program Integrity (PI): Program Integrity activities related to fraudulent claims resulted in savings to the government of nearly \$2,300,000 during FY

2002. The TMA PI Department is nationally recognized for excellence and is involved in educational activities across the nation.

#### Performance Improvement – Process and Clinical Outcomes

How the healthcare system performs in terms of process and clinical outcomes related to preventive and interventional strategies, and compliance with evolving standards for providing care, are both viewed by the healthcare industry as critically important perspectives on health plan performance.

##### Key findings:

1. **Clinical Practice Guidelines:** During FY 2002, the DoD/VA CPG working group issued one additional guideline, Uncomplicated Pregnancy, and five toolkits, Major Depressive Disorder, Substance Use Disorders, Post-Operative Pain, Post-Deployment Health. Implementation, which is not mandated with exception of the post-deployment CPG, is somewhat variable across the Services based on differing implementation priorities and strategies.
2. **National Quality Management Program (NQMP) Clinical Quality Studies:** In FY 2002, the NQMP clinical quality studies focused on DoD/VA CPG pre or early implementation where applicable. Health Employer Data Information Set (HEDIS®) methodology, an industry standard, was adopted for most studies where appropriate. The DoD results reveal some decrease in performance, compared to earlier studies. These differences, however, are largely explained by methodological issues. The FY 2002 studies serve as a useful baseline for performance assessment and improvement over time and continued application of HEDIS® methodology. Fact sheets relating to all NQMP clinical quality studies may be found in the appendix.
3. **Direct Care Dental Programs:** Nearly 95 percent of active duty service personnel remain available for world-wide deployment in dental class 1 or 2 status. Although a smaller percent of reserve component personnel are available for

proprietary contractor developed surveys as part of the TRICARE dental insurance contracts.

**Key findings:**

1. **Beneficiary Health Plan Ratings:** Beneficiary health plan ratings continue to improve in all beneficiary categories and are approaching civilian norms.
2. **Beneficiary Ratings of Health Care:** Beneficiary ratings of health care remain good to excellent for all beneficiary groups and are stable over time.
3. **Satisfaction with Access:** Beneficiary perspectives on access to healthcare services continue to improve and approach civilian norms.
4. **Dental Surveys:** Satisfaction with dental care and services remains very high in the direct care system and for dependents of active duty personnel receiving care through the TRICARE dental insurance program. However, retirees are generally less satisfied with their retiree dental insurance program. We are assessing satisfaction changes with the implementation of the new TRICARE retiree dental plans in 2003. Utilization of dental services by beneficiaries who have subscribed to both of the TRICARE dental insurance programs matches or exceeds civilian norms.

**Summary**

The MHS provides a comprehensive program of high quality health care services for its many beneficiaries. The foundations for providing high quality health care are robust. Performance measurement activities are improving consistently as are the tools we provide to managers to assess performance and adopt strategies for improving care and services. Comparisons between the MHS and civilian health plans, though desirable, are confounded by the complexity and geographic scope of our program. Beneficiary surveys reveal increasing satisfaction with the TRICARE health plan and broad satisfaction across all beneficiary groups with health care. However, opportunities remain for improvement and serve as a strategic goal of the Department.

deployment; due to dental classification, strategies to address these discrepancies are being introduced.

4. Preventable Admissions: Preventable admission rates for the active duty forces are excellent in comparison to civilian norms; rates for non-active duty enrollees are comparable to, or slightly better than civilian norms. The following benchmarks for the United States population were compared with active duty enrollees: angina, 60 per 100,000 vs less than 5 per 100,000; asthma, 100 per 100,000 vs. 10 per 100,000; bacterial pneumonia, 180 per 100,000 vs. 25 per 100,000; cellulitis, 80 per 100,00 vs. 55 per 100,000; congestive heart failure, 120 per 100,000 vs. less than 5 per 100,000, chronic obstructive pulmonary disease, 118 per 100,000 vs. less than 5 per 100,000; diabetes, 130 per 100,000 vs. 10 per 100,000; gastroenteritis, 38 per 100,000 vs. 35 per 100,000; and, urinary tract infection, 80 per 100,000 vs. 20 per 100,000.
5. Centers of Excellence (COE): The Department's COE program is moving toward adoption of and integration with, similar VA programs designed to assess and improve surgical quality of care performance over time.

#### Beneficiaries' Perspectives on Quality of Care

The final section of this report portrays the perspectives that our DoD beneficiaries have on the services and quality of health care they receive across the MHS. Multiple surveys are described in the report relating to both medical and dental services. The results of survey data serve as the basis for more focused analysis. In most instances the perspectives of our beneficiaries are based upon standardized industry-wide applicable, and utilized, survey methodologies; most specifically the survey tools developed by the Consumer Assessment of Health Plans which is funded by the U.S. Agency for Healthcare Research and Quality (Department of Health and Human Services). Dental care survey data is based upon DoD developed surveys or

## FOUNDATION FOR PROVIDING HIGH QUALITY CARE

This section of the report describes the structural components of quality assurance and risk management that provide the foundation for providing high quality care across the TRICARE Military Health System (MHS). The discussion below relates to the healthcare provided through the direct care system of military hospitals and clinics except where otherwise annotated.

### Medical Staff Licensure

DoD Directive 6025.13, "Clinical Quality Management Program (CQMP) in the Military Health Services System', July 20, 1995, requires that all physicians practicing in military facilities must obtain and retain at least one current, valid, unrestricted state medical license as a condition of practice. The Department does grant waivers for physicians who retain licenses which require substantial financial contributions to support the state malpractice funds, but are otherwise unrestricted.

There are three major difficulties regarding licensure for new military providers. The first is the requirement by some states to have completed two years or more of post-doctoral training prior to consideration for a full license. Second, the timing of the exam cycles may conflict with either assignment orders for general medical officers or the indoctrination of new medical or dental officers. Third, the infrequent timing of the individual state licensing boards may delay licensure for those applicants who have fulfilled all the requirements but are awaiting board actions.

Aggregate data for Fiscal Years (FY) 2000, 2001, and 2002 are portrayed in Table 1. The data include physicians with full valid unrestricted licenses or approved waivers as well as categories of physicians who possess neither. Categories of physicians without licenses (as of March 2003) are depicted by the gray or yellow shading on the table. The yellow shading reflects physicians in training programs; the blue shading

reflects physicians with licenses. The term post-graduate year (PGY) refers to the Graduate Medical Education (GME) training programs. Fellowship training is additional experience following a full GME residency program.

TABLE 1 – Status of Licensure of Military Physicians

DoD	FY 00	FY 01	FY 02	% Total
AD physicians with unrestricted license	9548	9587	9351	88%
AD physicians – licensed with waiver	810	936	824	
AD physicians – no license	1506	1314	1382	
Post-graduate year (PGY) – 1	747	688	747	10.9%
PGY – 2	504	430	489	
PGY > 2	112	80	22	
Fellowship training	25	11	1	
General Medical Officers (GMO)	105	100	82	1.1%
Residency trained but unlicensed	10	3	40	
Special Oklahoma license	2	2	1	
Other	1	0	0	
Total	11864	11837	11557	100%

Eighty-eight percent of all AD physicians possess full unrestricted licenses or retain approved waivers. The vast majority of DoD physicians without a license are either still in Post-Graduate Year -1 (PGY-1) and not eligible for licensure, are in PGY-2, PGY-3, post-doctoral fellowships, or serving as General Medical Officers (GMOs) in operational assignments. There are 40 recently accessed physicians who are fully trained and in the process of obtaining full unrestricted licenses and one physician with a special Oklahoma license who is no longer engaged in clinical medicine. Thus, approximately 99 percent of military physicians are licensed or in GME training; and, approximately one percent of physicians not in training are unlicensed.

No unlicensed physician is providing independent medical care to DoD beneficiaries. Those who are unlicensed, but still in training, are supervised by licensed attending physicians. Those physicians who are unlicensed, but not in training, can only provide medical care under a defined plan of supervision by a licensed physician while working through the license application process.

## BOARD CERTIFICATION

Board Certification is not a DoD requirement. As an incentive, board certification pay is offered to all physicians. Figure 1 displays board certification rates of DoD physicians for FY 2000, 2001, and 2002. The calculation is based on a denominator of all active duty physicians who were fully trained and qualified during these time frames. Physicians in training, general medical officers, flight surgeons and undersea medicine physicians who have not completed residency training are excluded. The DoD rate of board certification is slightly higher than the national rate reported by the American Medical Association.

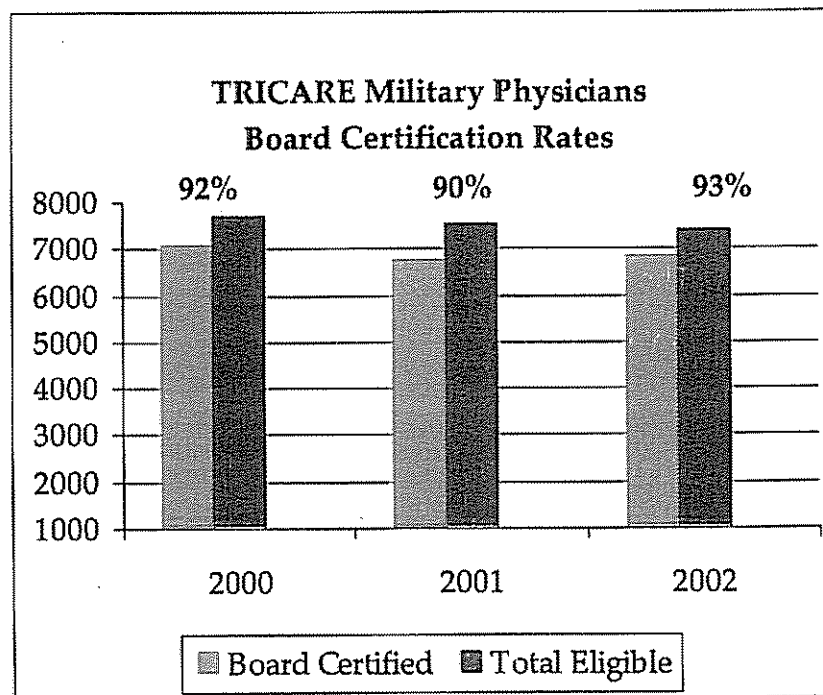


FIGURE 1 – TRICARE Military Physicians – Board Certification Rates

## DOD RISK MANAGEMENT AND PARTICIPATION IN THE NATIONAL PRACTITIONER DATA BANK (NPDB)

The Department of Defense aggressively manages its medical malpractice cases. The process by which DoD evaluates malpractice cases is complex with multiple legal and medical levels of review. Appendix B contains a flowchart portraying an explanation of the various stages through which medical malpractice cases proceed within the federal government.

Each Service Surgeon General has a highly structured method for the analysis of malpractice claims with multiple reviews. For paid malpractice claims where the Service Surgeon General has determined that the standard of care has been met by military providers, the records are sent to the Keystone Peer Review Organization (KePRO) for an external review of the case. In those cases where the final determination of a Surgeon General is that the standard of care has not been met for particular providers, those providers are reported to the National Practitioner Data Bank, maintained by the Department of Health and Human Services.

### External Data Review

In 1998, DoD began a program of external review of DoD malpractice cases by the Keystone Peer Review Organization (KePRO). Cases where the internal reviews determined that the standard of care (SOC) was met or cases that involved a system problem (in contrast with a provider problem) have been sent to KePRO for an external review of the SOC.

In 88 percent of the DoD cases reviewed in CY 2002, the civilian external review agreed with the determinations made by internal reviews. This pattern is consistent over several years. In our estimation, the high external-internal agreement rate validates the integrity of our internal review process.

For the purpose of trending malpractice in DoD, the Department of Defense has a standing Risk Management (RM) Committee. This body consists of senior staff from

DoD Health Affairs, TRICARE Management Activity, the three military Services, the DoD Office of the General Counsel, the three military Judge Advocate Generals (JAGs), the Department of Justice, and the Armed Forces Institute of Pathology Department of Legal Medicine. The major activities of the RM Committee have been oversight of DoD participation in the NPDB, the monitoring of the external Peer Review Program of certain DoD malpractice cases, and a continued relationship with the Department of the Treasury.

#### National Practitioner Data Bank Report Data

The Department of Defense participates in the National Practitioner Data Bank through a Memorandum of Understanding (MOU) between DoD Health Affairs and the DHHS. In addition to adverse privileging actions, DoD submits malpractice reports to the NPDB when the Surgeon General of the involved Service determines that the standard of care has not been met in a case involving a paid malpractice claim. Since 1991, the Department of Defense has made 886 medical malpractice reports regarding practitioners involved in malpractice claims to the NPDB. From 1998 through 2002, DoD has continued to report malpractice payments and adverse clinical privileging actions to the NPDB. The aggregate summary of these reports is portrayed in Table 3. Since 1997, based on malpractice payments, DoD has reported an average of 103 providers annually; 42 providers are reported annually due to adverse privileging actions. There has been no discernable pattern for either type of reporting. The yearly variation in reporting, portrayed in Table 3, is linked to the accumulation and elimination of a backlog of cases.

TABLE 3 - Reports to the NPDB 1997 - 2002

Year	DoD Providers Reported for Malpractice Payments	DoD Providers Reported for Clinical Privileging Actions
1997	46	58
1998	146	54
1999	101	38
2000	77	29
2001	143	40
2002	105	33

Table 4 depicts the profession of licensure for the healthcare providers reported to the NPDB in 2002. Eighty-one percent of the providers reported for medical malpractice were physicians (allopathic and osteopathic); nine percent were registered nurses. This proportionate pattern is consistent over the past four years.

TABLE 4 - DoD Malpractice Reports to the NPDB for CY 2002 by Profession of Licensure

	Number	Percent
Allopathic Physician	82	78
Registered Nurse	10	9
Nurse Practitioner	4	4
Osteopathic Physician	3	3
Physician Assistant	2	1
Dental Resident	2	1
Pharmacist	1	1
Nurse Anesthetist	1	1
Nurse Midwife	1	1

The NPDB Public Use File also contains information concerning the acts or omissions connected with the reports. The act or omission codes are those used by the Harvard Risk Management Foundation, adopted by DoD in 1988 and by the NPDB in 1990. Table 5 portrays the four categories with the greatest number of occurrences in 2002: diagnosis related (36 percent), obstetrics related (18 percent), surgery related (15 percent), and treatment related (13 percent). These data are reasonably consistent over the past decade.

TABLE 5 – Categories of DoD Malpractice Reports to the NPDB CY 2002

Act or Omission	Number	Percent
Diagnosis related	38	36
Obstetrics related	19	18
Surgery related	15	15
Treatment related	13	13
Miscellaneous	9	9
Medication related	7	7
Equipment related	2	2
Anesthesia related	0	0
Monitoring related	0	0
Total	105	

The Miscellaneous category includes failure to follow institutional policy; improper behavior; failure to protect third parties; breach of confidentiality/privacy; failure to maintain infection control; and, failure to review provider performance.

#### DoD Malpractice Claims Characteristics Using Service Claims Databases

Table 6 provides a breakout of paid DoD medical malpractice claims where the standard of care (SOC) was not met in CY 2002. These cases are identified by primary specialty. Obstetrics and gynecology (OB/GYN) had the largest number of paid claims in CY 2002 where the standard of care was not met, with a payout of \$16.8 million dollars. The six specialty areas reflected in the table account for approximately 75 percent of paid claims for DoD.

TABLE 6 – Primary Clinical Specialties for Paid DoD Claims - Standard of Care Not Met CY 2002

Specialty	SOC Not Met (No. of Cases)	Amount Paid (Millions of Dollars)
OBGYN	21	16.8
General Surgery	17	5.6
Family Practice	8	3.7
Pediatrics	7	12.9
Internal Medicine	5	1.3
Radiology	5	1.6

conducting unannounced surveys beginning in January 2006. The intent of the accreditation process is to ensure that organizations:

- Establish and maintain mechanisms to perform processes and functions;
- Measure those processes and functions to assess effectiveness; and,
- Influence continuous improvement in the performance of those important processes and functions.

The accreditation scores for the MTFs are compared to non-DoD facilities in the following tables. The average JCAHO scores for 2000 through 2002 for hospitals and ambulatory clinics are displayed in Tables 8 and 9. Tables 10 and 11 portray accreditation scores for CY 2002 for behavioral health facilities and laboratories, reported by JCAHO for the first time in the aggregated format. The numbers in parentheses indicate the number of facilities surveyed by JCAHO.

TABLE 8 – DoD Compliance with JCAHO Standards – Hospitals - CY 2000 - 2002

Average JCAHO Scores for DoD Hospitals			
Year	2000	2001	2002
DoD Hospitals	92 (24)	92.6 (34)	92.8 (22)
Non-DoD Hospitals	90.8 (1513)	91.3 (1508)	92.4 (1543)

TABLE 9 – DoD Compliance with JCAHO Ambulatory Care Standards – CY 2000 - 2002

Average JCAHO Scores for DoD Ambulatory Care Clinics			
Year	2000	2001	2002
DoD Ambulatory Care	96 (22)	93.8 (26)	94 (23)
Non-DoD Ambulatory Care	93.3 (396)	93.6 (539)	92.9 (438)

TABLE 10 – DoD Compliance with JCAHO Behavioral Health Care Standards - CY 2002

Average JCAHO Scores for Behavioral Health Care CY2002	
DoD Behavioral Health	96.8 (31)
Non-DoD Behavioral Health	93.6 (562)

Table 11 – DoD Compliance with JCAHO Laboratory Standards – CY 2002

Average JCAHO Scores for Laboratory Accreditation CY 2002	
DoD Clinical Laboratories	96.9 (7)
Non-DoD Clinical Laboratories	94.9 (1038)

For summary purposes, these data are aggregated in Figure 5 for DoD and non-DoD Healthcare facilities. DoD facility accreditation scores match or exceed non-DoD facility scores across the range of accreditation standards.

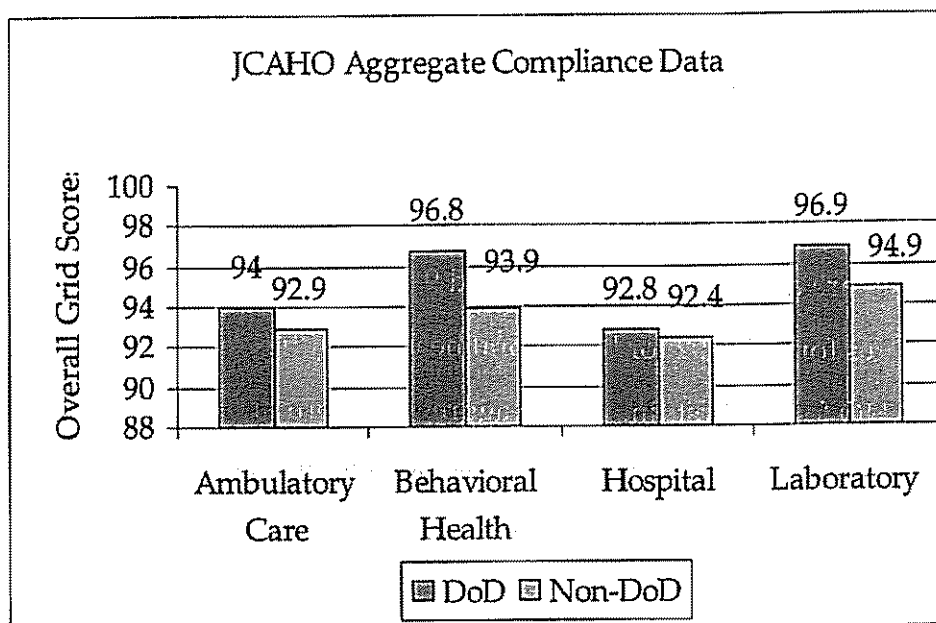


Figure 5 – JCAHO Aggregate Compliance Data DoD vs. Non-DoD CY 2002

## ORYX®

ORYX® is the name of the JCAHO initiative that integrates performance measurement into the accreditation process. In order to facilitate comparison across systems of care nationally, JCAHO chose conditions with considerable clinical importance and standardized definitions and measurement methodologies to assess these conditions. The conditions are referred to as Core Measures and the metrics associated with these as Core Measure Sets.

The Department is fully integrating its processes to comply with these ORYX® requirements. All 75 MTFs with inpatient capacity are participating in the ORYX® initiative. Comprehensive data portraying the performance of MTFs in accordance with these core measures will be reported in next year's report to Congress.

## OVERSIGHT OF CLINICAL QUALITY AND UTILIZATION FOR PURCHASED CARE

Oversight of clinical quality and utilization in the purchased care sector is primarily provided through the Managed Care Support Contractors (MCSCs). The regional TRICARE Lead Agent staff monitors contractor performance, and the National Quality Monitoring Contractor, the Keystone Peer Review Organization (KePRO), provides an external review of clinical quality and utilization of healthcare.

### Network Quality Assessment Programs

Data from regional quality oversight efforts are not tracked centrally due to variances across the contracts. This will be rectified in the new TRICARE contracts slated for implementation in 2004. Currently, MCSCs manage the healthcare delivery and monitor the quality of care provided within the TRICARE regions. The Designated Provider (DP) program provides care separately to a very small subset of beneficiaries. MCSC and DP quality oversight processes are similar. Each MCSC maintains a comprehensive Clinical Quality Management Program that directs the monitoring of both institutional network providers and individual network providers. Purchased care overseas is not under the oversight of managed care support contractors, and the monitoring of the quality of care provided in the purchased care sector overseas is less structured. Evolving strategies for assessing civilian care overseas are highlighted later in this section of the report.

### Verification of Credentials

A fundamental network quality activity is the assurance that competent, qualified providers constitute the preferred provider organization (PPO) networks. DoD requires that no fewer than 85 percent of audited files shall be in full compliance with all provider file requirements. An assessment of contractor performance regarding compliance has revealed inconsistencies and deficiencies of varied kinds. These were identified by Lead Agent clinical staff during FY 2002 and confirmed by a TRICARE Management Activity (TMA) directed audit in the autumn of 2002. The findings were

shared with the MCSCs resulting in corrective action plans. Primarily, discrepancies related to non-compliance with the contractual requirement for a two year re-credentialing cycle. All regions now report considerable progress toward resolution of outstanding discrepancies and some regions report no significant problems at the present time. Hence, timely audit and oversight resulted in improvements in processes. With the implementation of healthcare delivery under the new TRICARE contracts, credentials review is moving to a three year cycle in order to align with current industry practices and will be monitored by national accrediting agencies.

#### Other Elements of Quality Oversight

MCSCs are required to assess complaints and grievances submitted by beneficiaries, to perform quality of care studies to improve services and to evaluate Potential Quality Incidents (PQIs). PQI reviews are examinations into variances from expected provider performance and clinical care outside the parameters of professionally recognized standards. PQIs are identified by varied mechanisms most closely linked to utilization review processes and are based upon indicators of performance selected by the contractors or commonly applicable across the industry. In addition, PQIs identified by the KePRO external review process are submitted to the MCSCs for analysis and action. Through a systematic review of PQIs, validated quality of care incidents (QIs) are identified. Each QI determination is reflected in the network provider credentials files. Recurrent instances or severe incidents with patient harm may be the basis for provider counseling, removal from the network and/or reporting to state licensing authorities. This is very rare in our system. For institutions with a substantial number of QIs, corrective action plans (CAPs) are developed to correct the root causes of variations. Plans also include guidelines for monitoring to assure that changes in practice or behavior have occurred.

## Future Program Enhancements

Under the next generation of TRICARE contracts all health service support contractors will be required to obtain network accreditation by one of the nationally recognized accrediting agencies. These accrediting agencies have rigorous standards and measurement parameters linked to credentials management, assessment of quality performance, healthcare resource utilization and beneficiary satisfaction. The application of this requirement will standardize and improve the assessment of the quality of health care provided across our networks and move toward the achievement of comparability of oversight recommended by the DoD Healthcare Quality Initiatives Review Panel in its report to Congress, 2001.

## NATIONAL QUALITY MONITORING CONTRACT PROGRAM

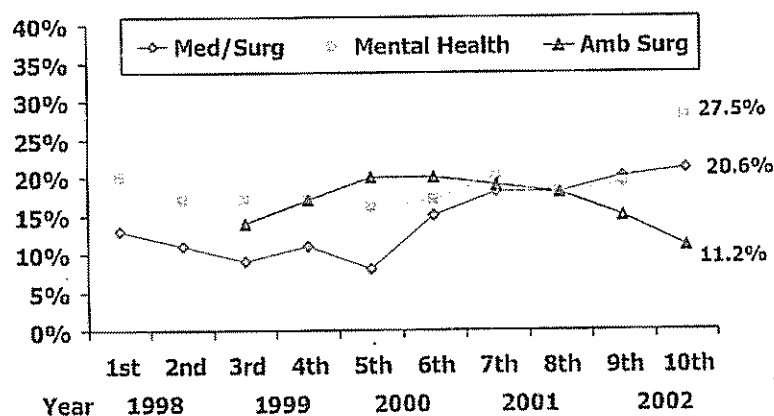
The National Quality Monitoring Program (NQMC) meets the external peer review function mandated by Congress in 10 U.S.C. §1079(o)(2). Under statute, TRICARE is directed to adopt or adapt the Medicare peer review process to assure appropriate utilization of healthcare services. The purpose of this program is to assist the TRICARE Management Activity and the Lead Agents by providing an independent impartial evaluation of the health care provided to the TRICARE beneficiaries in both the direct and purchased care components of our program by:

- Validating utilization management decisions;
- Monitoring the quality of care provided;
- Providing an external second level review for beneficiaries who appeal the denial of clinical services;
- Providing an external, independent review of paid MTF malpractice cases (see National Practitioner Data Bank Reporting section of this report); and,
- Conducting facility certification activities for Residential Treatment Centers, Psychiatric Partial Hospitalization Programs, and Substance Use Disorder Rehabilitation Facilities, to include onsite surveys.

During FY 2002, KePRO reviewed more than 17,000 medical records relating to care in the purchased care sector of which approximately 70 percent were related to medical or surgical care and 30 percent to mental health care. Each record undergoes a screening review based upon specific criteria for utilization review and quality management. Potential utilization or quality of care concerns are routed to the Health Service Support Contractors and/or DPs for follow-up action and analysis. Semi-annual discrete data reports are provided to the regional Lead Agents and both discrete, contractor specific and summary aggregate data semi-annual reports are provided to TMA.

The data portrayed in Figure 6 relate to the reviews of care provided by civilian providers and thus monitored by the HSSCs or DPs.

**Rates of Potential Quality and Utilization Concerns**



**FIGURE 6 – Rates of Potential Quality and Utilization Concerns - Purchased Care**

Approximately 15-20 percent of record reviews reveal concerns related either to utilization (usually prolonged stays) or quality of care. The increase in medical-surgical concerns reflected between the 5<sup>th</sup> and 7<sup>th</sup> semiannual reports (2000-2001) was, for the most part, due to the application of new screening criteria. Between the 7<sup>th</sup>-9<sup>th</sup> semi-

annual reports (2001-2002) the figures were generally stable. The most recent variance noted with the 10<sup>th</sup> semi-annual report (specifically, an increase in mental health concerns) has not been explained, and will serve as the basis for more in-depth analysis. The observed rates are not unusual in the healthcare industry and represent only potential concerns, often not validated on further reviews. It is important to note that the providers of care for TRICARE beneficiaries reflect a cross-spectrum of providers, are the same providers servicing Medicare and private carrier beneficiaries, and are not specifically under the control of our contractors. Thus, the data should be viewed in the broader context of the quality of health care and utilization reflective across the spectrum of the American healthcare industry, not merely of TRICARE providers. KePRO is not aware of any data which would portray TRICARE providers as some particular and different subset of the national healthcare provider pool.

#### Medical/Surgical Length of Stay Potential Concerns

The rate of length of stay concerns has remained fairly constant over the 5 years of the KePRO contract as reflected in Figure 7; averaging between 1-3 percent generally.

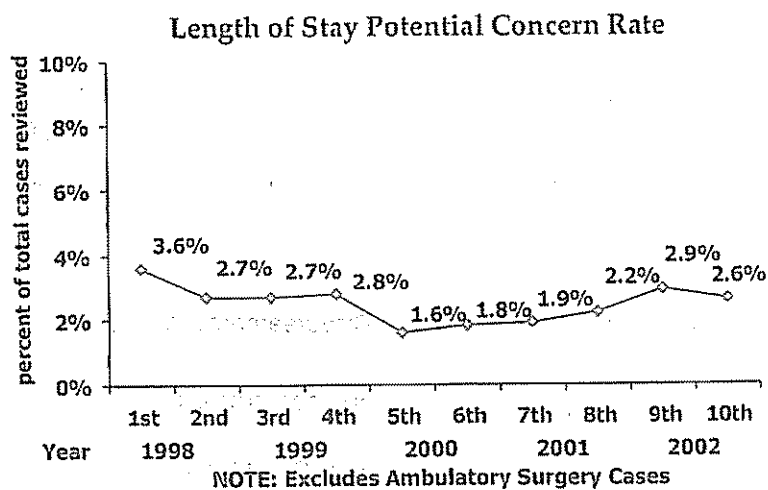


FIGURE 7 – Medical/Surgical Length of Stay Potential Concern Rates

These data reflect excellent performance. Most length of stay concerns are for prolonged stays and these, where present, have averaged just less than two days. It is important to bear in mind that reimbursement is limited by Diagnosis Related Group (DRG) caps, so hospitals actually lose money by keeping patients in longer than anticipated unless the DRGs are modified to reflect outlier events.

#### Admission Denial Disagreements

Under the TRICARE program non-emergency admissions are subject to medical necessity preauthorization. Figure 8 demonstrates that there is very little disagreement between MCSC and DP determinations and those of the external peer review process.

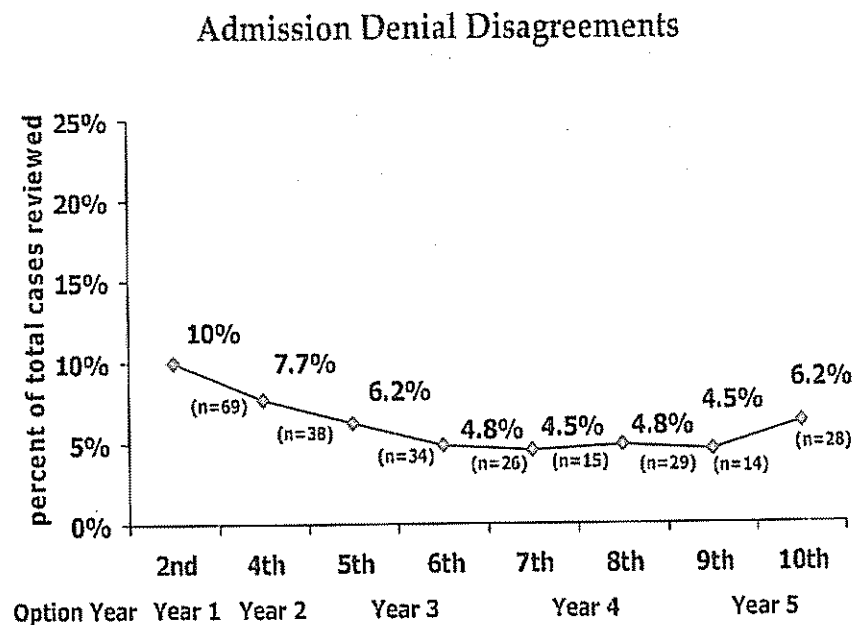


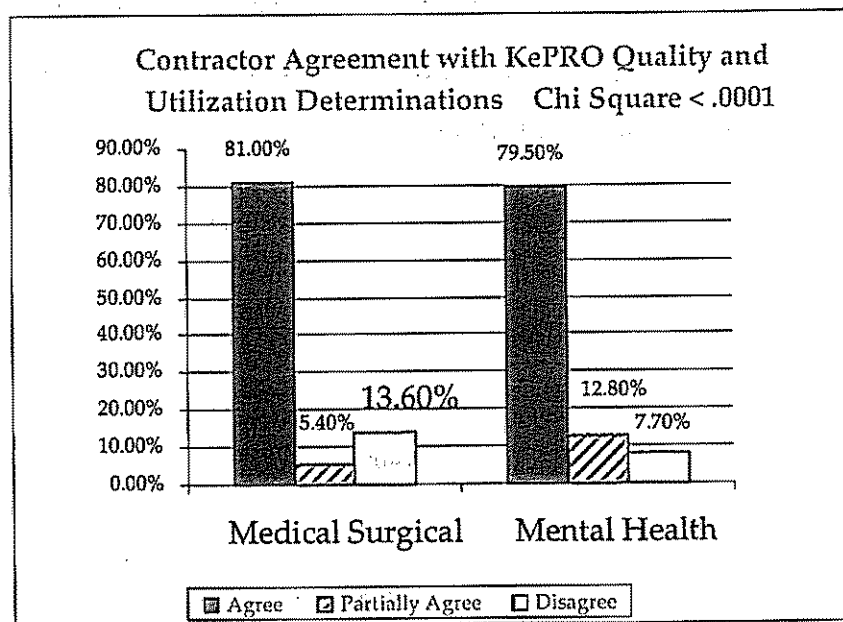
FIGURE 8 - Admission Denial Disagreements over Time

The initial disagreement rate of 10 percent has come down considerably, and the observed increase in the 10<sup>th</sup> semi-annual report requires further confirmation over time. The contractor has been advised of our concerns and an investigation is ongoing

at the present time. More broadly, there appears to have been a drop of nearly 40-50 percent in admission denial disagreements over the duration of the KePRO contract. The actual number of disagreements is small (note the total number of disagreements in parentheses in Figure 8).

#### Level of Agreement with KePRO Determinations

An important measure of the integrity of the contractors quality and utilization administrative processes and the validation of this by the external peer review process is the close rate of agreement between the Health Service Support Contractors and KePRO when issues related to utilization or quality are examined, as reflected in Figure 9.



**FIGURE 9 – Contractor Agreement with KePRO Quality and Utilization Determinations**  
When MCSCs and KePRO review the same records against the same criteria there is broad agreement in 85 to 90 percent of instances.

## Appeal Decisions

When the MCSCs or DPs deny care based upon a determination that the care is not medically necessary, the beneficiary can ask the NQMC to perform a second level appeal review. Data from our regions reveal that about 2-3 percent of inpatient admissions or ambulatory surgical procedures may be initially denied based upon non-compliance with standardized, nationally applied utilization review criteria as required contractually. Of that proportion, about one-third are subsequently approved by the MCSCs on reconsideration, usually because additional information is provided which justifies the interventions. A small proportion are subsequently appealed to KePRO and the data in Figure 10 reveal that just over half of the MCSCs denial determinations are upheld while just under half are modified or overturned. There were 266 appeals to KePRO which served as the basis for this data.

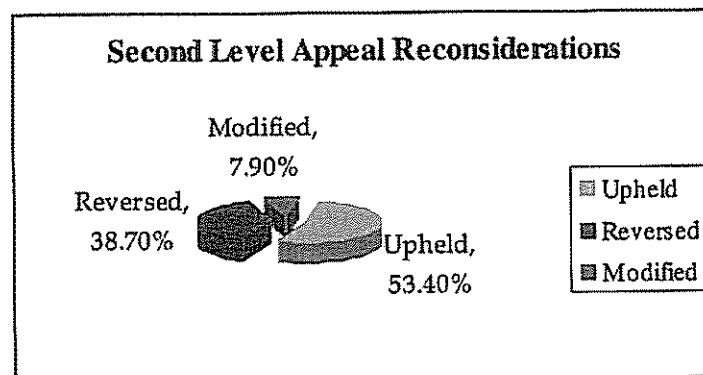


FIGURE 10 – Second Level Appeal Reconsiderations  
Source: 10<sup>th</sup> Semi-Annual Report (May '02 – Oct '02)

It should be pointed out that KePRO often has access to additional information not previously provided to MCSCs or DPs, and that there is some measure of disagreement between providers about what is the appropriate level of medical care or intervention. The experience portrayed above is common in the healthcare industry.

## QUALITY OVERSIGHT OF PURCHASED CARE IN EUROPE

TRICARE Europe's area of responsibility covers all of Europe, including Russia, the Middle East countries, and Africa. More than one-third of hospital admissions and greater than 10 percent of outpatient visits occur in host-nation settings in locally developed individual preferred provider networks (PPN). There is no MCSC oversight of network development or quality in Europe and there has been little in the way of centrally managed oversight of quality.

The TRICARE Europe Office (TEO) has embarked on a strategic initiative to improve quality of care monitoring for care provided in host-nation settings. An increased reliance on the network resources, especially in times of contingency support when network utilization may increase, makes it even more important that the TEO emphasize quality of care monitoring in the host-nation.

During the summer of 2002, the TEO surveyed all MTFs in the region and catalogued how each MTF currently conducts quality of care monitoring in four different domains including inpatient settings, outpatient settings, network management/oversight and patient satisfaction. In September 2002, the findings served as the basis for policy development.

The theater quality of care monitoring policy has specific requirements for networks affiliated with each MTF in eight separate elements:

- Individual provider files;
- Institutional provider files;
- Inpatient facility site visits;
- Outpatient facility site visits;
- Inpatient monitoring;
- PPN consult reviews;
- PPN oversight function; and,

- Patient satisfaction monitoring.

The policy was designed to standardize data collection in each domain, while preserving flexibility for MTF commanders to customize their quality monitoring and target the primary concerns in each host-nation. Different host-nations within Europe have different standards of practice and quality monitoring which make an overly rigid policy counterproductive. In addition, coding for services and the quality of coding in the purchased care sector overseas presents significant challenges.

To assist MTF commanders in targeting the most appropriate areas for monitoring, TRICARE Europe analyzed high frequency and high-risk potential targets for intervention. Because 37 percent of inpatient admissions and 50 percent of occupied bed-days in Europe occur in host-nation facilities, a focus on inpatient care was felt to be a reasonable area of emphasis. Though the majority of host-nation hospitalizations occur in Germany, hospitals in some of the other European countries represent areas of greater concern with regard to quality and consistency of care.

TRICARE Europe will have unique challenges monitoring quality indicators via claims data because of the variability in data quality provided but is committed to this initiative.

## Performance Improvement – Clinical and Process Outcomes

### CLINICAL PRACTICE GUIDELINE IMPLEMENTATION

Evidence-based clinical practice guidelines (CPGs) are focused on the delivery of consistent high quality care. They form the basis of population health prevention and condition management initiatives. The objective of any CPG-based condition management program is to expedite the diffusion of innovations in medicine. Expected outcomes in the management of a specific condition are improved quality and cost-effective care.

The Department of Defense/Veterans Affairs (DoD/VA) CPG initiative is in line with the Institute of Medicine's (IOM) recommendation to ensure the effectiveness of health care via the use of CPGs, as described in Crossing the Quality Chasm (March 2001). The following organizations also recommend the use of evidence-based clinical practice guidelines: the Joint Commission on the Accreditation of Healthcare Organizations, the National Council on Quality Assurance, the Institute for Healthcare Improvement and the Healthcare Quality Forum. CPGs can assist in improving patient safety, as described by the IOM in To Err is Human (December 2000), by decreasing errors of omission and commission.

Ideally, CPGs are evidence-based best practices grounded in the best available research rather than anecdotal experiences of individual providers. CPGs aim to decrease variation in the management of specific conditions, thereby improving quality of care. In some instances, there is not sufficient clinical evidence to support one particular approach over another. Hence, many guidelines include, where applicable, consensus-based proposals which may not be exclusively supported by available evidence. The DoD/VA Working Group selects high-cost or high-volume conditions specific to the DoD and VA healthcare systems for CPG implementation.

To date, sixteen CPGs are available for use across the three Services and the VA. Five more CPGs are under development and six are being updated. Appendix C lists these guidelines. The CPGs are also listed on the AHRC National Quality Measures Clearinghouse website at <http://www.qualitymeasures.ahrq.gov/> and thus are available for use by the general public.

CPG toolkits are essential to guideline implementation. Provider support tools include documentation forms to streamline and standardize clinician assessment, medical education videos and provider reminder cards. Patient self-management tools include self-care brochures, videos and CD-ROMs. System support tools include guideline metric measurement and feedback loops. By developing and deploying the toolkits centrally, toolkit items are standardized throughout the MHS. Each of the guidelines and the supporting tools are available on line at both the Army Quality Management Office website: <http://www.QMO.amedd.army.mil> and the VA Office of Performance and Quality website: [www.OOP.med.va.gov/cpg/cpg](http://www.OOP.med.va.gov/cpg/cpg).

#### Implementation of Clinical Practice Guidelines

In 1998, the Army Medical Department contracted RAND Corporation to develop the best method for implementation of the DoD/VA CPGs. RAND recommended the following implementation steps:

- Develop and incorporate provider and patient tools into CPG specific toolkits;
- Pilot the CPG toolkits to ensure utility of the products;
- Introduce the CPGs and toolkits into MTF primary care portals through an educational satellite broadcast by showcasing the implementation done at the pilot sites to MTF clinical teams; and
- Measure CPG metrics for process improvement and to establish internal and external benchmarks.

Each of the Services has taken a slightly different approach to CPG implementation. The Army focused on development, piloting, and deployment of

as civilian benchmarks on figures that accompany this report may be biased because not all health plans report their data. The voluntary nature of reporting may skew the performance of reporting health plans toward better performance than is generally the norm. Finally, it should be noted that differences in methodology between FY 2001 and FY 2002 NQMP studies make comparisons difficult. The Department did not employ HEDIS® in its FY 2001 studies. Methodology significantly affects data accrual, management and portrayal.

The primary differences in methodology relate to the requirements for continuous enrollment for approximately one year in order for beneficiary data to be included in the HEDIS® data set and capturing the varied sources of patient encounter data. Hence, HEDIS® looks at health plan performance over an extended timeframe resulting in somewhat different results than those obtained when looking at data from a more limited period. Given the annual approximate 20-30 percent turnover in our TRICARE Prime enrolled population each year, (associated primarily with changes of duty stations), there is ongoing debate as to the most appropriate way to view this data. Providers focus on the clinical needs of their active patients, those who they see with some frequency in their offices. Health plans engaged in HEDIS® focus on providing services to a continuously enrolled population over time which will also include many who are seen less frequently and not actively managed. These issues notwithstanding, the decision of the Scientific Advisory Panel was to apply strict HEDIS® methodology to permit comparison with HEDIS® reporting plans.

Both asthma and diabetes are clinical conditions identified as DoD/VA clinical practice guidelines. The following discussion serves as an example of the clinical quality studies that address key aspects of the CPGs as they are practiced in the MTFs. The study population includes TRICARE Prime enrolled beneficiaries receiving services primarily at one of the MTFs.

## Asthma Care - Appropriate Use of Medication in the TRICARE Military Health System

Asthma is highly prevalent in all beneficiary categories, and the DoD/VA CPG for treatment of patients with persistent symptoms is well established, even if not consistently implemented. Patients with persistent asthma should usually receive controller medications to prevent symptoms that may progress in severity.

HEDIS® assesses asthma management in relation to the use of appropriate medications by health plan members with persistent asthma. HEDIS® data are reported in percentiles, i.e., the proportion (percentile) of health plans that are reporting at a particular rate of compliance with the HEDIS® standard.

Figure 12 portrays appropriate use of asthma medications for TRICARE Prime MTF enrolled persistent asthmatic patients compared with the varied percentiles for plans that report to HEDIS®.

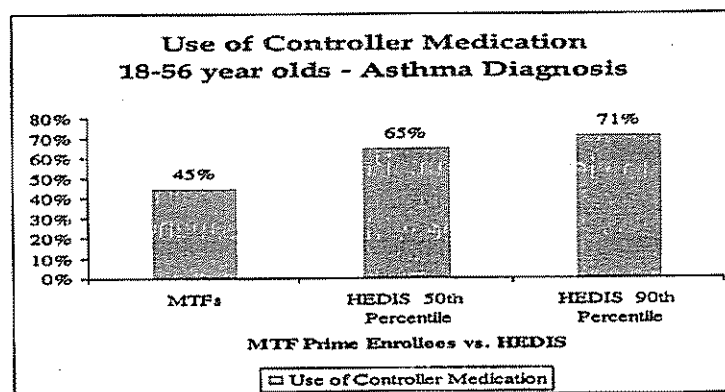


FIGURE 12 - Use of Controller Medication MTF Prime Enrollees Compared with HEDIS®

In contrast to last year's asthma study, the application of strict HEDIS® methodology resulted in lower rates of compliance with standard guidelines for the use

of controller medications by the TRICARE MTF enrolled population. The data were similar across services and, though not portrayed graphically, use of controller medication was proportionately higher among younger beneficiaries, especially children, compared to older beneficiaries.

Tables 14 and 15 portray the impact of controller usage on both emergency department (ED) utilization and hospital admissions. In both instances healthcare resource utilization was decreased when controller medications were used appropriately. Underutilization of controller medications resulted in nearly 93 percent of emergency department visits and 96 percent of hospitalizations for asthma. This translates to considerable expenditures of healthcare resources including personnel time, medical equipment, consumable supplies, and pharmaceuticals. Further efforts to increase controller medication utilization are underway through publication of key points in DoD newsletters and Fact Sheets and advocacy for enhanced employment of the DoD/VA Asthma CPG. The potential for improvement in the health of the population of patients with asthma is great, as is the potential for substantial savings in Defense Health Program funds.

TABLE 14 – Emergency Department Utilization by Patients with Asthma  
Effect of Underutilization of Appropriate Medication Prior to ED Visit

MTF Affiliation	ED Visits by Enrollees with Asthma	Controller Medication Prior to ED Visit N (%)	No Controller Medication Prior to ED Visit N (%)
All MTFs	3,150	231 (7.3%)	2,919 (92.7%)
Army	1,043	89 (8.5%)	954 (91.5%)
Navy	621	41 (6.6%)	580 (93.4%)
Air Force	1,486	101 (6.8%)	1,385 (93.2%)

TABLE 15 – Hospital Admissions for Asthma  
Effect of Underutilization of Appropriate Medication Prior to Hospitalization

MTF Affiliation	Hospital Admission for Asthma	Controller Medication Prior to Hospitalization N (%)	No Controller Medication Prior to Hospitalization N (%)
All MTFs	485	18 (3.7%)	467 (96.0%)
Army	155	4 (2.6%)	151 (97.4 %)
Navy	92	6 (6.5%)	86 (93.5%)
Air Force	238	8 (3.4%)	230 (96.6%)

### Diabetes Mellitus Care in the Military Health System

Diabetes is a major chronic illness that is increasing in prevalence most likely because of dramatic increases in Type-2 diabetes related to increases in persons who are overweight or obese. The MHS is not immune to this problem, and although the proportion of active duty service members with diabetes is low, the rate of diabetes in their family members and in retirees and their family members, including elderly TRICARE for Life beneficiaries, makes diabetes management a priority for the MHS.

The measurement of Hemoglobin A1c (HbA1c) is the most effective way to ascertain control of blood sugar over time, and is critically important in the management of patients with diabetes. Periodic measurement of HbA1c is a parameter of the DoD/VA CPG. Figure 13 reveals that when applying strict HEDIS® methodology, approximately 72 percent of MTF-enrolled TRICARE beneficiaries with diabetes have had this test. This proportion, when compared to other plans that voluntarily report this HEDIS® measure, places the TRICARE health plan below the 50<sup>th</sup> percentile.

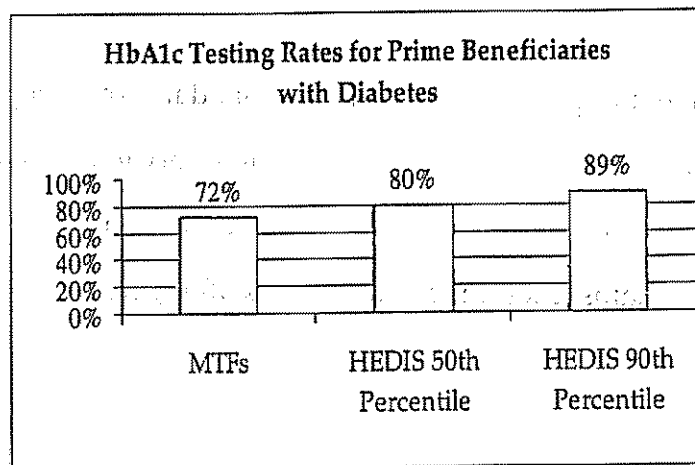


FIGURE 13 - HbA1c Testing Rates for Enrolled Beneficiaries with Diabetes

It is notable however, as portrayed in Figure 14, that HbA1c control is achieved in approximately 63 percent of beneficiaries with diabetes, which places the TRICARE health plan above the HEDIS® 50<sup>th</sup> percentile.

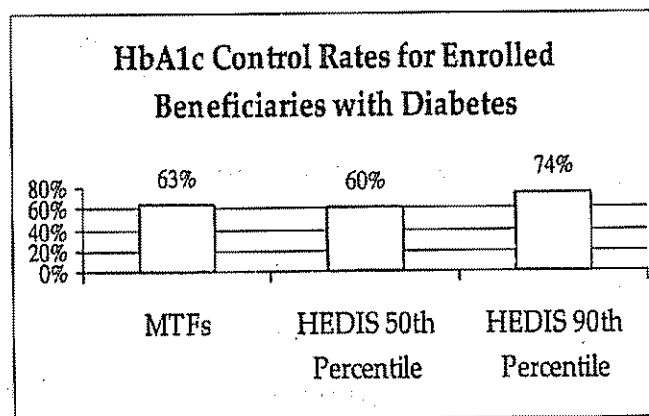


FIGURE 14 – HbA1c Control Rates for Enrolled Beneficiaries with Diabetes

One should appreciate that application of strict HEDIS® methodology results in lower proportions of patients reflected with HbA1c in control because those patients with no test result recorded (due to missing data or lack of compliance with healthcare recommendations) are defined as 'not in control'. Data from the Services own surveillance of diabetes care reveal that 85-90 percent of patients who have had testing

performed, have HbA1c results within acceptable limits for good diabetes management.

Clinical management of patients with diabetes mandates that they receive periodic eye examinations. Figure 15 below demonstrates very good compliance with this requirement with 76 percent of TRICARE Prime MTF enrollees receiving appropriate periodic eye exams, exceeding the HEDIS® 90th percentile.

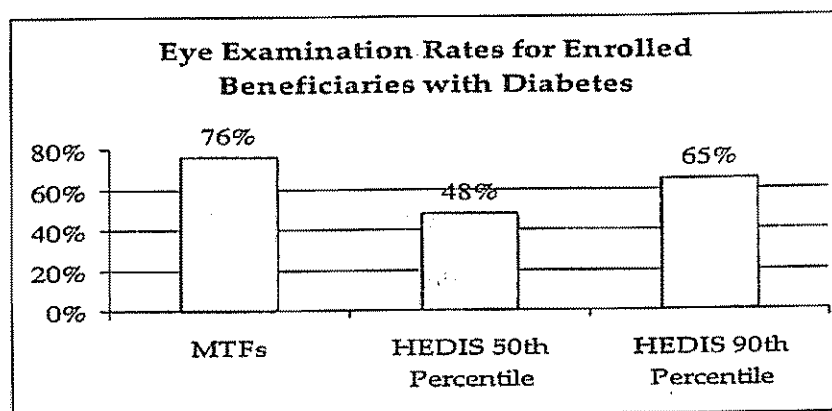


Figure 15 – Eye Examination Rates for Enrolled Beneficiaries with Diabetes vs. HEDIS®

In conclusion, the application of strict HEDIS® methodology has resulted in portrayals of MTF clinical and process outcome data which are at some variance from previously reported data. When viewed from the health plan perspective and utilizing the stricter enrollment and ascertainment methodology of HEDIS®, there is considerable opportunity for improvement in the MHS.

## DIRECT CARE DENTAL PROGRAMS

Dental health and readiness is best assessed by measurement of the proportion of active duty service members (ADSMs) who are available for worldwide deployment. In 1996, the Tri-Service Dental Chiefs established a Dental Readiness goal that required the Services maintain at least 95 percent of all active duty service members (ADSMs) in Dental Class 1 or 2. Figure 16 portrays the dental readiness from FY 1997 – 2002.

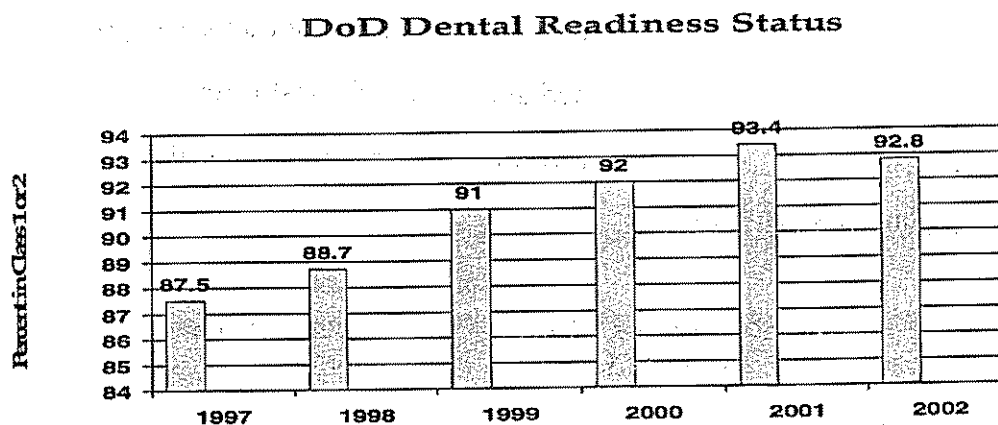


FIGURE – 16 DoD Dental Readiness Status

The DoD Dental Readiness (Health/Wellness) Classification System is as follows:

- Dental Class 1 Patients with a current dental examination, who do not require dental treatment or reevaluation – *worldwide deployable*;
- Dental Class 2 Patients with a current dental examination, who require non-urgent dental treatment or reevaluation for oral conditions, which are unlikely to result in dental emergencies within 12 months – *worldwide deployable*;
- Dental Class 3 Patient who require urgent or emergent dental treatment – *not worldwide deployable*; and,
- Dental Class 4 Patients who require periodic dental examinations or patients with unknown readiness classifications – *not worldwide deployable*.

Over the past six years, the combined dental class 1 and 2 rate has improved resulting in a 92.8 percent average for DoD active duty service members in FY 2002. The remaining seven percent are nearly equally distributed between classes 3 and 4. A recent study of those in class 4 resulted in a reclassification of over 90 percent to class 1 or 2 following examination. Hence the dental readiness status of the active force is excellent.

### Dental Wellness

Figure 17 portrays the proportion of the active duty force that is categorized as Dental Class 1. This proportion has remained stable over the last three years. However, the Tri-Service goal is to increase the dental wellness to 65 percent and this goal is the basis for planning at the present time.

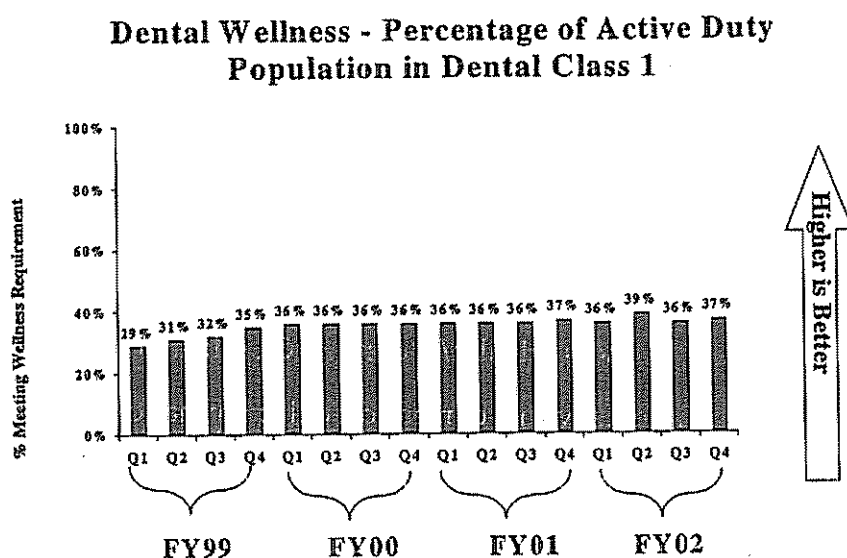


Figure 17 – Dental Wellness – Percentage of ADSMs in Dental Class 1

### Study of the Oral Health Status and Treatment Needs of the Reserve Component

During reserve mobilizations/activations before and after September 11, 2001, field reports from military dental treatment facilities indicated that the dental health

and readiness of the Reserve Component (RC) had not improved since Operations Desert Shield/Desert Storm. Since there was limited documentation on the dental health status of the RC, TMA funded a project by the Tri-Service Center for Oral Health Studies (TSCOHS) at the Uniformed Services University of the Health Sciences to assess the dental health of mobilized reservists. The study began in October 2001 and concluded in August 2002. In the study, Public Health Dentists at TSCOHS evaluated the treatment records of over 10,000 reservists from all the Services mobilized for Operations Enduring Freedom/Noble Eagle.

The data showed that reservists had high rates of Dental Class 3 conditions (not worldwide deployable) and that the predominant treatment needs were restorative and oral surgery. The proportion of reservists categorized as Dental Class 3 ranged from 8 to 25 percent and therefore, are not deployable. Furthermore, on average, an activated reservist required approximately two procedures or oral surgery interventions. Although reservists with no insurance required a slightly higher proportion of procedures, their dental treatment needs were otherwise not affected by their insurance status. These findings are the basis for forward planning within the Department at the present time.

## PREVENTABLE ADMISSIONS AND THE TRICARE PRIME HEALTH PROGRAM

Preventable admission rates are used by various healthcare organizations to gauge adequacy of timely and efficacious outpatient care. Thus, to some extent they are measures of access to care. In *Access to Care in America*, (1993), the Institute of Medicine recommended monitoring preventable admissions, especially for vulnerable populations. The MHS monitors preventable admissions related to nine illnesses of importance to our system. The data portrayed below reflect preventable admission rates for MHS Prime beneficiaries, ages 18-64, enrolled in the direct care system of military hospitals and clinics. The MHS rates are compared to National Hospital Discharge Survey (NHDS) data compiled annually by the Centers for Disease Control/National Center for Health Statistics. This is the nationally recognized reference database. Figure 18 below portrays preventable admission rates for active duty service personnel for FY 2001 and 2002 as compared to our own internal benchmark experience (1999-2000 defined-benchmark) and to the NHDS database.

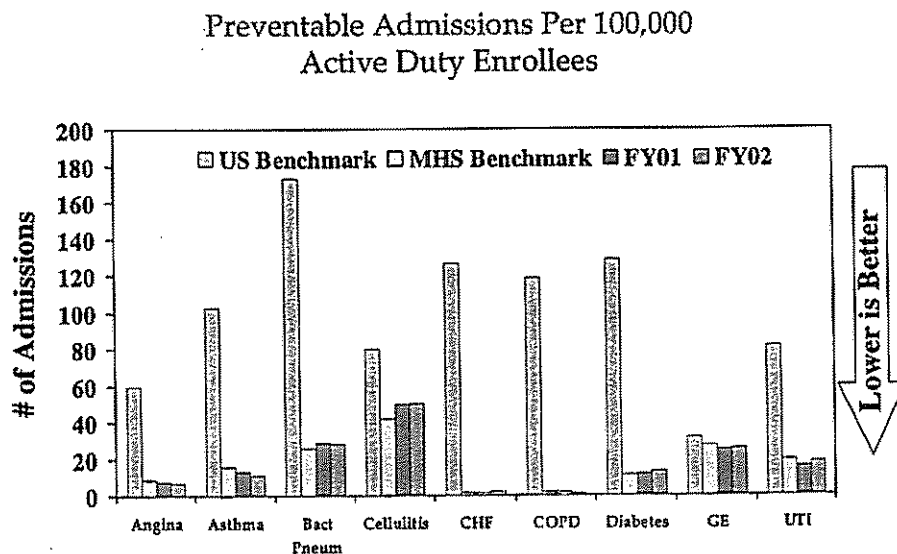


FIGURE 18. Preventable Admissions, Active Duty Forces, FY 2001 & 2002, Compared with Previous MHS and National Data

Bact Pneum	Bacterial pneumonia
CHF	Congestive heart failure
COPD	Chronic obstructive pulmonary disease
GE	Gastroenteritis
UTI	Urinary tract infection
Source: MHS Mart (M2) [Standard Inpatient Data Record (derived from MTFs), Health Care Service Record – Inpatient (derived from claims), TRICARE Enrollment Summary File]	
Benchmarks: US = MHDS mean for 1999-2000; MHS = MHS mean for 1999-2000	

Notable are the low rates of preventable admissions of active duty personnel for these conditions. The extremely low rates of admissions for congestive heart failure, chronic obstructive pulmonary disease and diabetes reflect the very low prevalence of these conditions in the active duty forces, each of which is generally disqualifying for continuation on active duty.

Figure 19 portrays the same measures, this time related to non-active duty Prime enrollees.

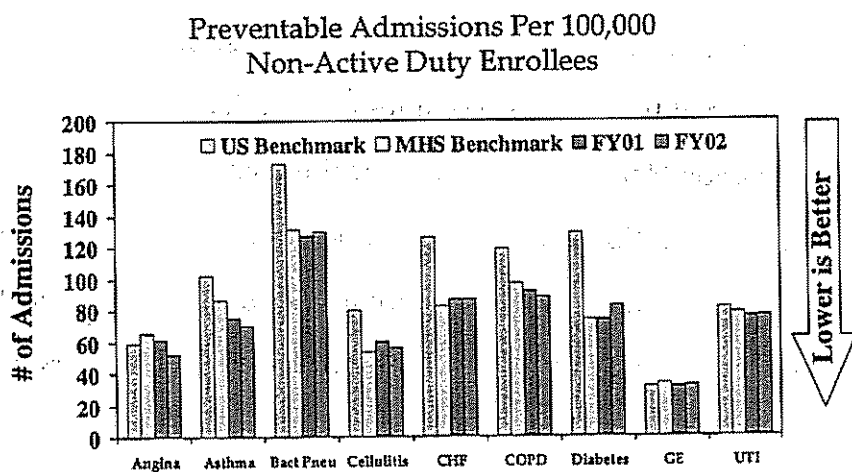


Figure 19. Preventable Admissions, Non-Active Duty TRICARE Prime Enrollees, FY 2001 & 2002, Compared to Previous MHS and National Data

The non-active duty population of Prime enrollees is characterized by having greater illness burden than the active duty forces. Hence, the admission rates for the

targeted conditions are somewhat higher than those portrayed on Figure 17 above. This is especially the case when looking at data relating to bacterial pneumonia, congestive heart failure, chronic obstructive pulmonary disease and diabetes, all of which are much more common in this population. Bacterial pneumonia is linked intimately with asthma and chronic obstructive pulmonary disease. Preventable admissions for these conditions remain comparable to or below the NHDS survey data and the FY 2002 data are stable as compared to FY 2001 and the MHS defined benchmark period.

Hence, the MHS does an excellent job of preventing admissions for the targeted illnesses. This supports the goals of ensuring sufficiency of access and quality of healthcare services provided to our TRICARE Prime enrolled beneficiaries.

#### POPULATION HEALTH OPERATIONAL TRACKING AND OPTIMIZATION

The Executive Information /Decision Support (EI/DS) Program Office for the MHS provides decision support information and tools used by manager, clinicians, and analysts to manage the business of health care within the MHS. To enable the flow of complete and accurate information to the decision-makers, EI/DS manages the receipt, processing, and storage of tremendous volumes of data that characterize operations and performance. Population Health Operational Tracking and Optimization (PHOTO) provides, in a single application, a concise set of health plan performance measures to give healthcare executives and managers information regarding the effectiveness and efficiency of their program execution as well as a friendly and easy-to-use browser interface that ensures fast and reliable access.

PHOTO enables visibility via the web browser interface into the TRICARE Prime beneficiary healthcare patterns for decision-making purposes. Personnel at all levels of the direct care MHS can access standardized metrics to measure performance, outcomes, satisfaction, population, and resource data from all facets of the healthcare delivery system. Multiple levels of aggregation allow managers at corporate, regional

and local levels to evaluate the quality of their data, as well as their contribution to total plan performance.

The strategic objective for PHOTO is to provide feedback with actionable data to providers, managers, and stakeholders about the progress and effectiveness of business process reengineering efforts. Metrics must be available for review and comparison at all levels of the MHS in order to support sustained improvement. A TriService Metrics workgroup determines which specific comparable metrics will allow all components of the MHS to report progress toward optimization goals. Where applicable, the Health Employer Data Information Set (HEDIS®) based metrics mirror performance and quality measures used throughout the healthcare industry. PHOTO provides insight into MHS business practices with the ability to drill down to a level of granularity detailed enough to allow decision makers at all levels of the MHS to use the information to effect change at their level.

The metrics incorporated in September 2001 provide information about customer satisfaction and broad measures of clinical and business activity. Additional metrics released in October 2002 address clinical practices and population health measures. Current PHOTO metrics are portrayed in Table 16.

TABLE 16 – PHOTO Metrics

<b>Customer Satisfaction</b>	<b>Population Health Improvement</b>
Overall Satisfaction with Care Received at MTF	Breast Cancer Screening
Wait Time at Appointment Standard	Cervical Cancer Screening
Wait Time for Appointment Standard	Prenatal Care in First Trimester
<b>Best Clinical Practices</b>	<b>Best Business Practices</b>
Preventable Admission Rates for Nine Diagnoses	Outpatient Visits / 1000 Prime Enrollees
Follow-up after Hospitalization for Mental Illness	Specialty Referrals (Consultations) / 1000 Prime Enrollees
Check-ups after Delivery	Discharges / 1000 Prime Enrollees
Eye Exam for Diabetics	Average Length of Stay for Prime Enrollees
Beta Blocker after Heart Attack	Emergency Room Visits / 1000 Prime Enrollees
Asthma Management	Percent External Customer Workload – Space A
	SADR to MEQS Visit Comparison
	Prime MTF Enrollee Visits in Network / 1000 MTF Enrollees

Future enhancement to PHOTO will allow for displaying provider actionable clinical data for individual Primary Care Managers.

The measures reported by PHOTO enable evaluation of both the clinical effectiveness of interventions and the effectiveness of system implementation of evidence-based practice. Strategic benefits accrue because the MHS is able to use the standard metrics reported by PHOTO to apply a common and agreed upon assessment of organizational performance across all elements of the MHS. Operational benefits accrue because performance measures reported at the local level are designed to assess the health of the population, the quality and cost-effectiveness of the delivery system, and the impact of clinic practice on the individual treated.

The Department's metrics standardization process is maturing and should facilitate the evolution of PHOTO as a near real time view of health status of our beneficiary population. Representative samples of PHOTO reports are contained in Appendix E.

#### CENTERS OF EXCELLENCE AND SURGICAL QUALITY IMPROVEMENT PROGRAMS

DoD continues to explore development of validated criteria for Centers of Excellence (COE). Recent efforts are leading towards a collaborative effort with the Veterans Administration (VA). This would include the Department participating in the VA National Surgical Quality Improvement Program (NSQIP) and Continuous Improvement in Cardiac Surgery Program (CICSP). The current target date for starting pilot surgical quality improvement programs based on the VA models at medical centers from each of the Services is early FY 2004.

Current efforts focus on integrating these performance measures with the DoD COE clinical criteria. The VA programs have proved successful in lowering surgical morbidity and mortality over the first ten years of NSQIP (1991-2001). Based on the use of validated clinical criteria models, they compare observed with expected outcomes for morbidity and mortality to identify programs that are either achieving desired improvements in outcomes or show signs of impaired quality. The DoD COE program will evolve toward achieving this goal.

#### MILITARY TREATMENT FACILITY INNOVATIONS

The MHS has implemented many innovative programs to improve the access and quality of healthcare while enhancing the medical readiness of our armed forces

and keeping costs down. Often, one facility does not know what another has accomplished, nor has the time to research this. The Office of the Chief Medical Officer hosted a Poster Exhibit during the 2003 TRICARE Conference. The Poster Exhibit was a tremendous success because of the committed efforts and dedication of many organizations. Sixty-eight innovations from FY 2002 were submitted and twenty-eight posters were ultimately highlighted at the conference. Abstracts related to these innovations are contained in Appendix F.

The goal of the poster exhibit was to showcase MHS innovations, link people with ideas, and provide information and tools for organizations within the MHS. Innovations were also posted to the public domain Healthcare Innovations Program (HIP) website ([www.tricare.osd.mil/innovations](http://www.tricare.osd.mil/innovations)) after the conclusion of the annual TRICARE Conference. The HIP website assists healthcare facilities in transforming business or clinical processes—with simple improvements to state of the art practices.

## Beneficiaries' Perspective on Quality of Care

### HEALTHCARE SURVEY ACTIVITIES FY 2002

The TRICARE Management Activity (TMA) actively evaluates the quality and performance of TRICARE healthcare services by gauging beneficiary perspectives through the administration of several healthcare surveys. These surveys supply information that helps focus quality oversight and improvement efforts. The healthcare surveys are designed to gather data on beneficiary satisfaction, utilization and needs. To provide a frame of reference, civilian benchmarks are reported with the MHS survey results when possible, and survey tools utilized are similar or identical to those used across the healthcare industry. Though the specific issues to be addressed by surveys may vary over time, depending on programmatic needs or policies, common themes addressed include the following:

- Sources of health care utilized by beneficiaries;
- Preventive healthcare services received by beneficiaries;
- Experiences related to obtaining health care;
- Experiences with administrative issues such as claims, benefits information and appointing services;
- Confidence in quality of health care;
- Health status of beneficiaries; and,
- Beneficiary demographic factors (which facilitates comparison across categories).

### Major Healthcare Surveys

TMA centrally manages and conducts five major healthcare surveys:

- The Healthcare Survey of DoD Beneficiaries (HCSDB);
- Health Related Behaviors Survey (HRBS);
- Customer Satisfaction Survey (CSS);

- Purchased Care Survey (PCS); and,
- Inpatient Care Survey (ICS).

These surveys are categorized into two broad classifications:

1. Population-Based Surveys which assess cumulative experience or health status, and use of preventive services over time; and,
2. Event-Based Surveys which assess experience with specific encounters, focusing on customer service, appropriateness of, and access to, care.

### Dental Surveys

Apart from the TMA administered surveys, dental treatment facilities (DTFs) administer surveys to patients randomly selected. In addition, both dental contractors, charged with administering the TRICARE dental insurance programs for non-active duty beneficiaries, administer proprietary surveys to assess satisfaction with the dental plans.

Representative examples of survey data are portrayed below.

### The Healthcare Survey of DoD Beneficiaries (HCSDB)

The HCSDB is a non-event-based quarterly survey of a sample of 200,000 beneficiaries per year over four quarters. The core of the survey is the Consumer Assessment of Health Plans (CAHPS) which is a mainstream survey instrument developed by a consortium of RAND, Harvard University, and Research Triangle Institute. This survey tool is used by many civilian healthcare organizations, including the Centers for Medicare and Medicaid Services. The HCSDB consists of questions on the status of respondents' health, their needs for health care, use of healthcare services, and experience with accessing health care from military and civilian sources.

To further facilitate military and civilian efforts to measure and improve quality in managed care, TMA shares survey data with the CAHPS Benchmark Database, which is administered by the Agency for Healthcare Research and Quality (AHRQ) of the Department of Health and Human Services.

Results of the HCSDB are posted in *The TRICARE Consumer Report* on the web at <http://www.tricare.osd.mil/tricaresurveys/>.

## Survey Results

Figure 20 portrays beneficiary satisfaction with the TRICARE health plan over time (including both the direct care component of military hospitals and clinics and the purchased care component).

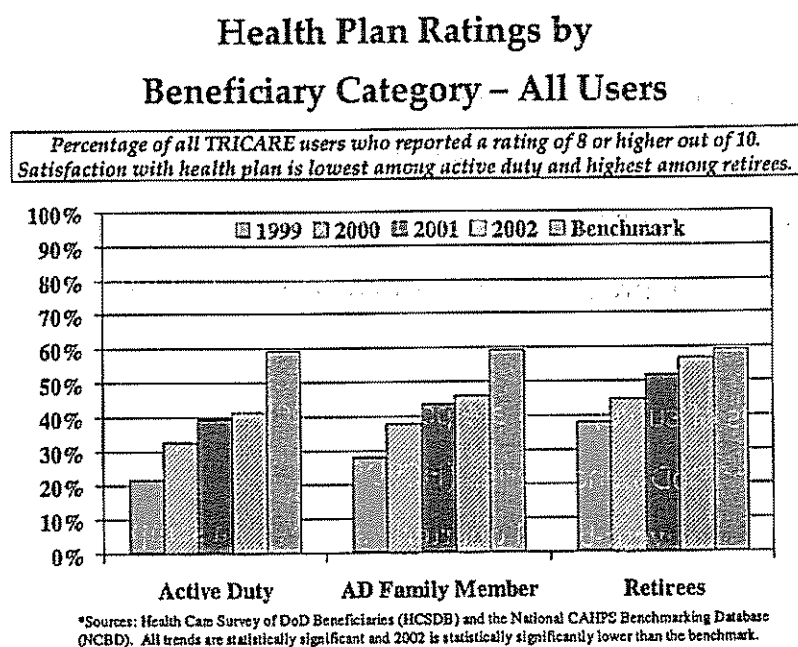


FIGURE 20 - Satisfaction with TRICARE Health Plan by Beneficiary Category

Though the difference between TRICARE health plan satisfaction scores and the civilian averages derived from the National CAHPS Database are statistically significant, the trends for satisfaction with TRICARE have been continually rising over time. Satisfaction with health plan relates to satisfaction with varied aspects of plan administration (appointing, claims processing, network sufficiency, etc.). Modest satisfaction with health plans nationally is evident in the CAHPS Database and our figures are consistent with this view of national plans. Given the complexity of our

health plan, its triple option, broad geographic diversity, and varied beneficiary categories, our data may not be completely comparable to CAHPS. More important is the comparison of FY 2002 data to previously reported performance over time, and that trend is positive. The patterns are consistent also across all users of the TRICARE options. Though not portrayed graphically, associated data reveal that TRICARE Prime enrollees are generally more satisfied than TRICARE Standard/Extra beneficiaries. Figure 21 portrays satisfaction with health plan among TRICARE Prime enrollees over time.

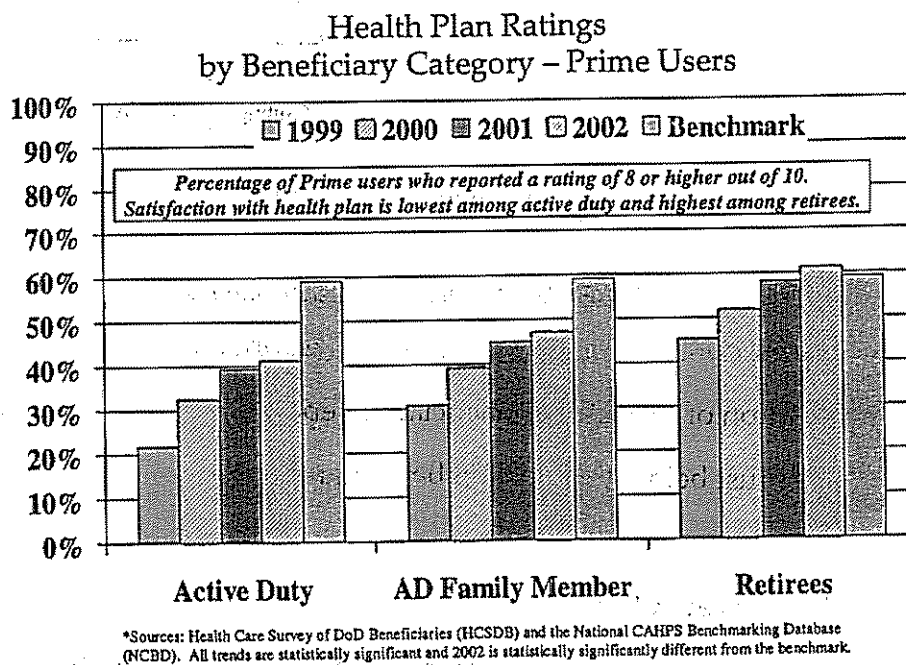


FIGURE 21 – Satisfaction among TRICARE Prime Enrollees

In general, TRICARE Prime retirees are more satisfied with the TRICARE health plan, actually exceeding the CAHPS Database benchmark for the first time in FY 2002. Active duty service members (ADSMs) remain the least satisfied group; reasons for this are not clear and are the basis of ongoing analysis. Likely confounders include perceptions related to garrison versus MTF-based care, shifting of MTF services from a "sick-call" culture to a scheduled appointment culture and other issues. Again notable

is the consistent improvement over time in all beneficiary categories. Figure 22 portrays data related to satisfaction with access and with getting needed care.

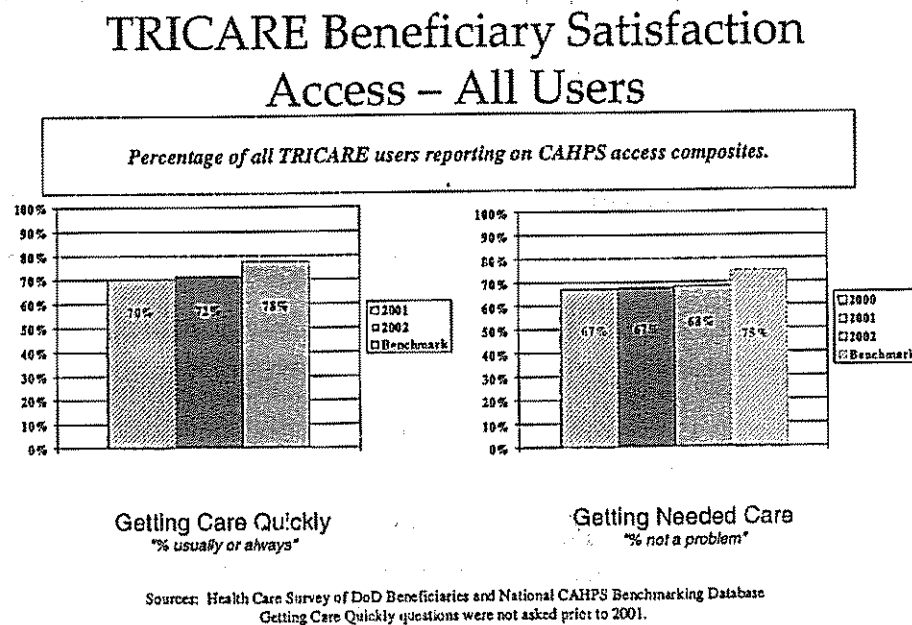


FIGURE 22 – TRICARE Beneficiary Satisfaction with Access

Beneficiary perceptions on access to care and appropriateness of care are good, and though the proportion of TRICARE beneficiaries reporting satisfaction with these aspects of care remains just below the CAHPS benchmarks, our trends over time remain positive.

#### Customer Satisfaction Survey (CSS)

The CSS is a monthly survey of a random sample of approximately 50,000 beneficiaries who have recently received care from outpatient clinics operated by MTFs. Thus, this tool looks at event-based perceptions. The key determinants of satisfaction are in the areas of access, quality and interpersonal relationships. Figure 23 portrays satisfaction with health care received in military hospitals and clinics over the past 4 years.

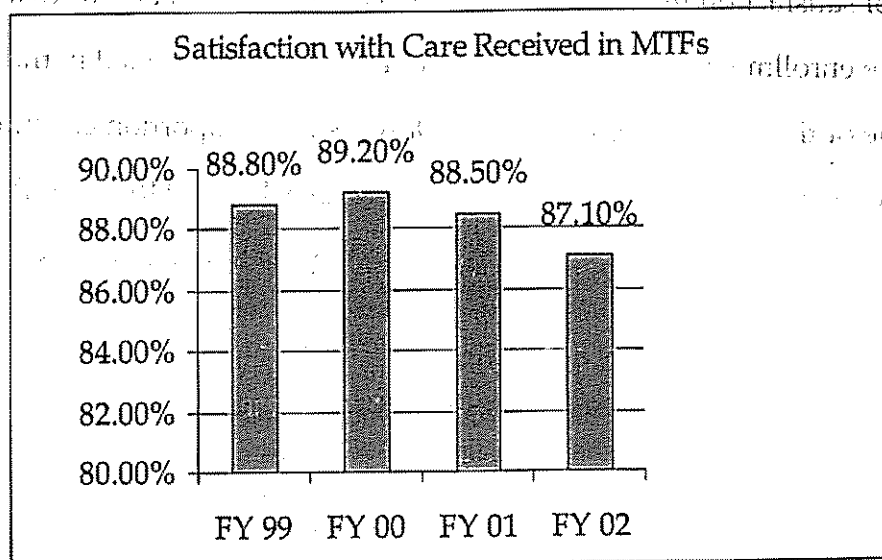
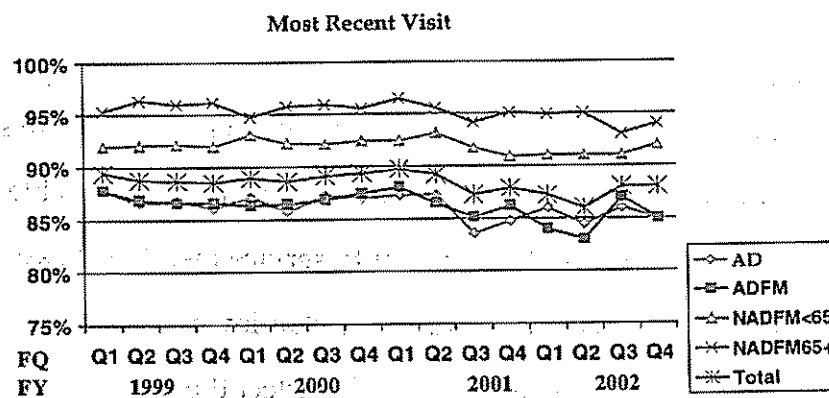


FIGURE 23 – Satisfaction with Health Care Received in MTFs over Time

Satisfaction with health care provided within MTFs remains very good to excellent with little variation over time. Figure 24 below demonstrates satisfaction by beneficiary category. Satisfaction with health care remains very good to excellent across beneficiary categories, though the ADSMs and their family members are marginally less satisfied than retirees and especially elder retirees.

### Beneficiary Satisfaction with Healthcare



Source: Customer Satisfaction Survey  
Current as of: Jan 2003

Figure 24 – Beneficiary Satisfaction with Health Care Over Time

Another view of satisfaction related to MTF-based care is reflected below, that being TRICARE Prime enrollment. The vast majority of beneficiaries enrolled in the TRICARE Prime option are enrolled to MTFs. Only a small proportion are enrolled to contractor network primary care managers. Figure 25 reveals that TRICARE Prime enrollment continues to increase whereas capacity has generally remained stable.

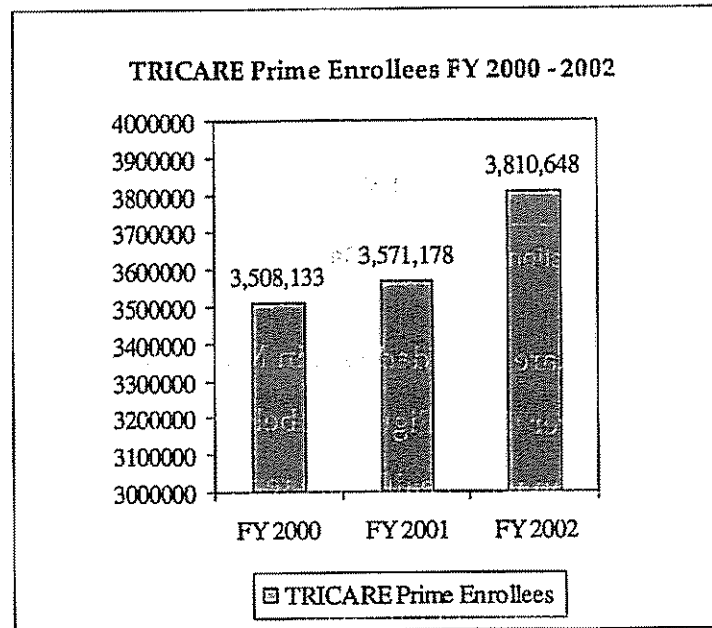


FIGURE 25 – TRICARE Prime Enrollment over Time

### Dental Care Satisfaction

Dental services are offered nearly exclusively in the direct care system of military hospitals and clinics primarily for active duty service members. Table 17 portrays high satisfaction with dental services by active duty service members based upon surveys administered in MTF dental clinics. The somewhat lower satisfaction rates for access and waiting time for appointments most likely reflect the shortages in dentists reported by some of the Services.

## APPENDICES

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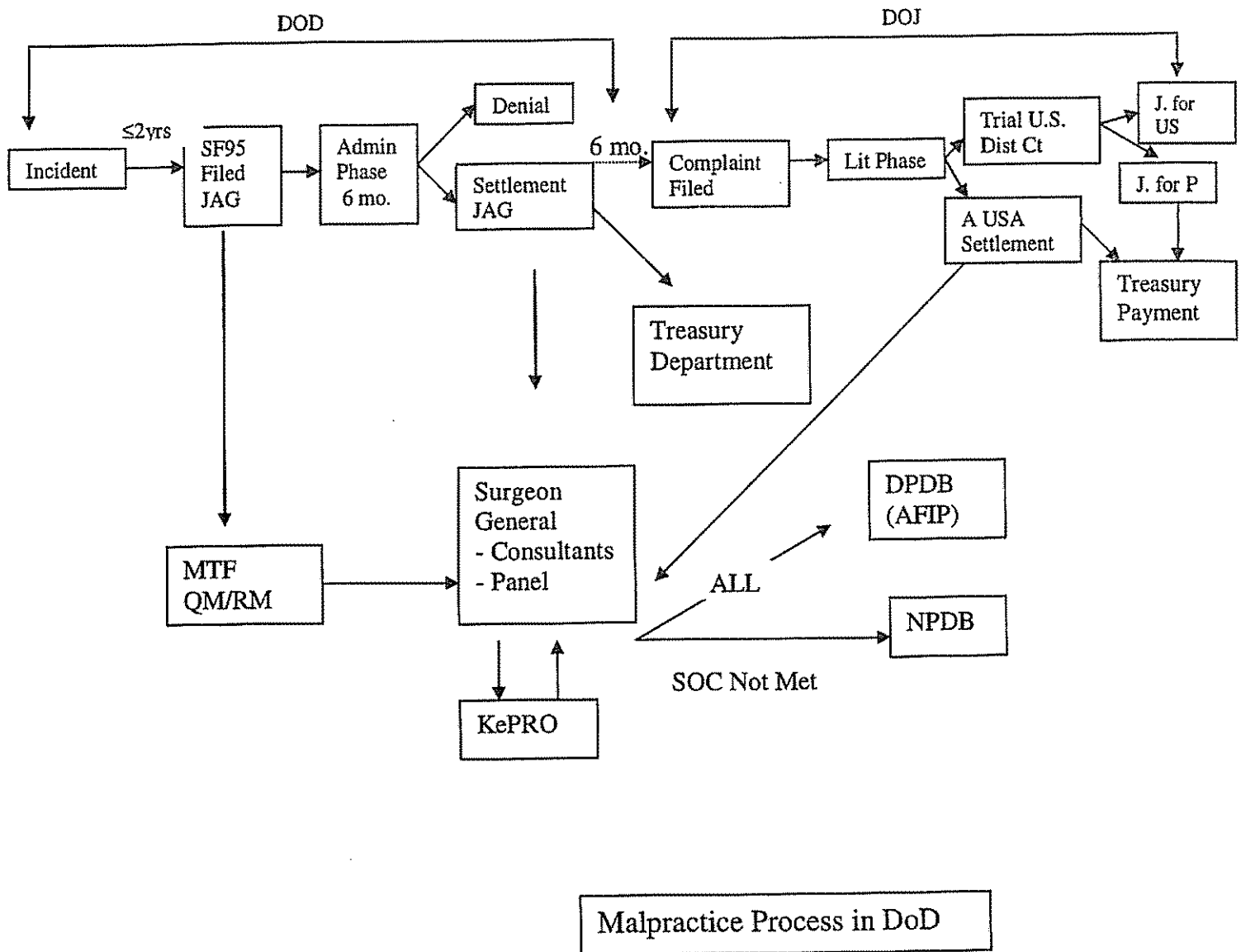
## Acronyms Used in this Report

AD	Active Duty
ADSM	Active Duty Service Member
AFIP	Armed Forces Institute of Pathology
ARHC	Agency for Research and Healthcare Quality
AUSA	Assistant United States Attorney
Bact Pneum	Bacterial Pneumonia
CAHPS	Consumer Assessment of Health Plans
CAP	Corrective Action Plan
CBRNE	Chemical, Biological, Radiation, Nuclear, high-yield Explosives
CCQAS	Comprehensive Clinical Quality Assurance Program
CERPS	Center for Education and Research in Patient Safety
CHCS	Composite Health Care System
CHF	Congestive Heart Failure
CICSP	Continuous Improvement in Cardiac Surgery Program
COE	Center of Excellence
COPD	Chronic Obstructive Pulmonary Disease
COT	Chronic Opioid Therapy
CPG	Clinical Practice Guideline
CQMP	Clinical Quality Management Program
CSS	Customer Satisfaction Survey
CY	Calendar Year
DCIS	Defense Criminal Investigation Service
DIGMA	Drop-in Group Medical Appointment
DM	Diabetes Mellitus
DoD	Department of Defense
DOJ	Department of Justice
DP	Designated Provider
DRG	Diagnosis Related Group
DTF	Dental Treatment Facilities
ED	Emergency Department
EI/DS	Executive Information/Decision Support
FY	Fiscal Year
GDE	Graduate Dental Education
GE	Gastroenteritis

[illegible]

**Abstract**

## Medical Malpractice – Process through Federal Agencies



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1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1861. It is a very important document, as it sets out the President's policy for the new year. The President states that he is pleased to see the Congress assembled, and that he is confident that the country is in a good position to meet the challenges of the future. He also mentions the recent election of Abraham Lincoln as President, and expresses his confidence in the new administration.

2. The second part of the document is a report from the Secretary of the Treasury, dated January 1, 1861. It provides a detailed account of the financial state of the country at the beginning of the year. The report states that the country is in a sound financial position, with a strong treasury and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

3. The third part of the document is a report from the Secretary of the Interior, dated January 1, 1861. It provides a detailed account of the state of the interior of the country at the beginning of the year. The report states that the country is in a good position to meet the challenges of the future, with a strong interior and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

4. The fourth part of the document is a report from the Secretary of the War, dated January 1, 1861. It provides a detailed account of the state of the war at the beginning of the year. The report states that the country is in a good position to meet the challenges of the future, with a strong war effort and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

5. The fifth part of the document is a report from the Secretary of the Navy, dated January 1, 1861. It provides a detailed account of the state of the navy at the beginning of the year. The report states that the country is in a good position to meet the challenges of the future, with a strong navy and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

6. The sixth part of the document is a report from the Secretary of the State, dated January 1, 1861. It provides a detailed account of the state of the state at the beginning of the year. The report states that the country is in a good position to meet the challenges of the future, with a strong state and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

7. The seventh part of the document is a report from the Secretary of the Education, dated January 1, 1861. It provides a detailed account of the state of the education at the beginning of the year. The report states that the country is in a good position to meet the challenges of the future, with a strong education system and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

8. The eighth part of the document is a report from the Secretary of the Agriculture, dated January 1, 1861. It provides a detailed account of the state of the agriculture at the beginning of the year. The report states that the country is in a good position to meet the challenges of the future, with a strong agriculture and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

9. The ninth part of the document is a report from the Secretary of the Commerce, dated January 1, 1861. It provides a detailed account of the state of the commerce at the beginning of the year. The report states that the country is in a good position to meet the challenges of the future, with a strong commerce and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

10. The tenth part of the document is a report from the Secretary of the Finance, dated January 1, 1861. It provides a detailed account of the state of the finance at the beginning of the year. The report states that the country is in a good position to meet the challenges of the future, with a strong finance and a healthy economy. It also mentions the recent election of Abraham Lincoln as President, and expresses confidence in the new administration.

## Clinical Practice Guidelines and Toolkits

Condition	Date CPG Released	Date CPG Toolkit Available
Tobacco Use Cessation (TUC)	November 1999 (Being updated)	September 2001
Hypertension	November 1999 (Being updated)	Under development
Low Back Pain (LBP)	November 1999	February 2000
Asthma	February 2000	September 2000
Diabetes Mellitus (DM)	May, 2000 (Being updated)	January 2001
Chronic Obstructive Pulmonary Disease (COPD)	April 2000	
Dysuria in Women	May 2000	
Major Depressive Disorder (MDD)	May 2000	September 2002
Substance Use Disorders (SUD)	April 2001	September 2002
Dyslipidemia	September 2001 (Being updated)	Under development
Ischemic Heart Disease (IHD)	September 2001 (Being updated)	Under development
Post-Operative Pain	October 2001	May 2002
Post-Deployment Health (PDH) <ul style="list-style-type: none"> <li>• Screening Health Exam</li> <li>• Medically Unexplained Symptoms (MUS)</li> </ul>	September 2001 (Being updated) August 2001	January 2002
Health Promotion and Disease Prevention <ul style="list-style-type: none"> <li>• Breast Cancer</li> <li>• Cervical Cancer</li> <li>• Chlamydial Infection</li> <li>• Colorectal Cancer</li> <li>• Lipid Abnormalities</li> <li>• Problem Drinking</li> <li>• Tobacco Use</li> <li>• Immunizations (Influenza, Pneumococcal)</li> </ul>	November 2001	

Uncomplicated Pregnancy (UCP)	November 2002	December 2002
Gastroesophageal Reflux Disease (GERD)	Under development	
Stroke	Under development	
Psychosis	Under development	
Chronic Opioid Therapy (COT)	Under development	
Post-Traumatic Stress Syndrome (PTSD)	Under development	

# National Quality Management Contract

## Special Studies

### Fact Sheets

Asthma Care

Breast Cancer Screening

Cervical Cancer Screening

Childhood Immunizations

Chlamydia Testing

Depressive Disorder Treatment

Diabetes Care

Management of Dyslipidemia

Post-deployment Health Assessment

Tobacco Use Cessation



# ASTHMA CARE—APPROPRIATE USE OF MEDICATION IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*“Military Treatment Facility (MTF) enrollees who have persistent asthma are appropriately medicated for this condition at a lower rate than the National Committee for Quality Assurance (NCQA), Health Plan Employer Data and Information Set (HEDIS) participating health plans that report this measure. Despite low medication rates, MTF enrollees appear to compare favorably with national baselines and goals for utilization of hospitals and emergency departments for asthma care.”*

### Why study Asthma Care?

Prevalence rates for asthma are increasing worldwide. Effective asthma management includes using appropriate pharmaceuticals for long-term control of the condition. Based on clinical evidence, the Department of Defense (DoD)/Veterans Health Administration (VHA) developed the Clinical Practice Guideline (CPG) for asthma. The guideline addresses management and treatment of persistent asthma.

This study was conducted primarily to measure the use of long-term controller medications in the management of persistent asthma. Secondly, the study examined utilization of emergency department (ED) services and inpatient hospital services for beneficiaries with an asthma diagnosis.

### What was the methodology?

Both the HEDIS appropriate medication metric and the Healthy People 2010 (HP2010) utilization measures were examined. The utilization study population included all beneficiaries, ages 5 through 64 years on December 31, 2001. Beneficiaries were included in the population regardless of the length of time enrolled to TRICARE. The study population for the HEDIS measure “Use of Appropriate Medications for People With Asthma” included MTF continuously enrolled beneficiaries, ages 5 to 56 years with persistent asthma identified by meeting one or more of the following conditions:

- One or more hospital admission or emergency department visit for a diagnosis of asthma
- Four or more outpatient visits for asthma in

conjunction with two prescriptions for asthma medications

- Four or more prescriptions for asthma medications

The study population was identified using year 2000 data. For those in the study population, prescriptions for long-term controller medications for asthma, written in 2001, were identified. Long-term controller medications were defined as inhaled corticosteroids, nedocromil and cromolyn sodium, leukotriene modifiers, and methylxanthines. This measure was created using HEDIS 2002 Technical Specifications. The specifications were implemented as written and no modifications were made. A supplemental analysis was conducted to examine the relationship between asthma medications and the health service utilization outcomes of hospitalization and ED visits among the persistent asthma study population.

### What were the results?

The HEDIS persistent asthma population contained 46,769 enrollees. The population included more females (56 percent) than males (44 percent). The population was predominantly adult, ages 18 to 56 years (54 percent). Children ages 5 through 9 years represented 17 percent of the group.

The number of Active Duty (AD) members with persistent asthma was small (n=2,023) in comparison to the number of Non-Active Duty (NAD) persistent asthmatics (n=44,746).

The utilization cohort included all enrolled beneficiaries 5 through 64 years of age. There were approxi-



benchmark.

- Perform further studies on the differences in medication rates by duty status.

### *Study Limitation*

This study was conducted in accordance with the HEDIS 2002 methodology. Therefore, results of this study are not comparable to the asthma care study conducted in FY01, which used a modified HEDIS methodology.

### *Where to go for more information?*

Army: **COL Stacey Young-McCaughan**  
[stacey.young-mccaughan@  
cen.amedd.army.mil](mailto:stacey.young-mccaughan@cen.amedd.army.mil)

Navy: **CDR Ken Yew**  
[ksyew@us.med.navy.mil](mailto:ksyew@us.med.navy.mil)

Air Force: **Lt Col Kimberly P. May**  
[kimberly.may@pentagon.af.mil](mailto:kimberly.may@pentagon.af.mil)

Revised 22 May 2003



# BREAST CANCER SCREENING IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*"Breast cancer screening rates varied significantly by Military Service, ranging from 77 percent for women enrolled to Army Military Treatment Facilities (MTFs) to 81 percent for women enrolled to Navy MTFs, and 83 percent for women enrolled to Air Force MTFs."*

### Why study Breast Cancer Screening?

An estimated 192,200 new cases of breast cancer will be diagnosed among women in 2001, and 40,200 women will die of this disease (CDC, 2001). Numerous studies have reported a reduction in breast cancer mortality associated with mammography (CDC, 2001; Tabor et al 2001; Banks et al 2001).

As a result of the effectiveness of mammography, the United States Preventive Services Task Force (USPSTF) recommends mammography every one to two years for women aged 40 and older and annually for women over age 50 (AHRQ, 2000). Access to this testing is provided to female MHS beneficiaries as a TRICARE Standard and Prime Clinical Preventive Services benefit (TRICARE Management Activity (TMA), 2002). In November 2001, the Department of Defense (DoD) and Veterans Health Administration (VHA) developed a guideline for Health Promotion and Disease Prevention Indicators that included mammography for breast cancer screening.

Efforts to examine breast cancer screening rates are ongoing at the DoD. For example, a Fiscal Year (FY) 2001 National Quality Management Program (NQMP) study examined mammography rates for the population of women ages 52 through 69 enrolled to an MTF as of March 2001 (Birch & Davis, 2001). The study noted mammography rates of 70 percent for women enrolled to an MTF, 70 percent for Non-Active Duty (NAD) enrollees, and 74 percent for Active Duty (AD) enrollees.

This NQMP study refines estimates of breast cancer screening and answers the following questions:

1. What is the breast cancer screening rate for women continuously enrolled to an MTF? Does the breast cancer screening rate vary by enrollment site: All MTFs, TRICARE Region, Military Service, and Service Intermediate Command?
2. What is the breast cancer screening rate for TRICARE beneficiaries continuously enrolled to Network providers?
3. What is the breast cancer screening rate for all beneficiaries eligible for care in the MHS?

### What was the Methodology?

The study population consisted of women ages 52 through 69 between April 1, 2001, and March 31, 2002. Mammography data were examined for the period April 1, 2000 through March 31, 2002.

The metrics developed and examined in this study include:

- MTF enrollees continuously enrolled—This measure used the Health Plan Employer and Information Set (HEDIS) 2002 Technical Specifications for Breast Cancer Screening. The specifications were implemented as written and no modifications were made. This measure evaluated the percentage of women ages 52 through 69 continuously enrolled in TRICARE Prime to an MTF who had a mammogram during the two-year observation period.
- Network enrollees continuously enrolled—This measure used a modified HEDIS methodology. The numerator included administrative radiology test data for mammography as an indicator



Figure 1. Schematic representation of the experimental design. The subjects were divided into two groups: the control group and the experimental group. The control group was divided into two subgroups: the control group and the experimental group. The experimental group was divided into two subgroups: the control group and the experimental group. The control group was divided into two subgroups: the control group and the experimental group. The experimental group was divided into two subgroups: the control group and the experimental group.

1. *Journal of the American Medical Association*, 1997; 277: 1033-1037.

# CERVICAL CANCER SCREENING IN THE MILITARY HEALTH SYSTEM (MHS) 2001-2002

## A National Quality Management Program Special Study

*"Pap testing rates varied significantly by Military Service, ranging from 70 percent for cohort members enrolled to an Air Force Military Treatment Facility (MTF) to 64 percent for cohort members enrolled to Navy and Army MTFs."*

### *Why study Cervical Cancer?*

Cervical cancer is the 10th most common cancer among women in the United States and is anticipated to result in more than 4,000 deaths in 2002 (U.S. Department of Health and Human Services, 2001). Studies show that the majority of these deaths are preventable when the cancer is detected early through Papanicolaou (Pap) smear testing, and the patient receives appropriate treatment (Gottlieb et al., 2001).

The U. S. Preventive Services Task Force (USPSTF) recommends routine Pap testing for cervical cancer for all women who are or have been sexually active and who have a cervix. Pap smears should be repeated at least every three years. Annual access to this testing is provided to female MHS beneficiaries as a TRICARE Standard and Prime Clinical Preventive Services benefit (TRICARE Management Activity (TMA), 2002).

This study characterizes Pap testing practices for women continuously enrolled to MTFs and provides comparisons of these baseline MTF Department of Defense (DoD) rates to national benchmarks. Specifically, the following questions were examined:

- What is the Pap testing rate for women ages 21 through 64 continuously enrolled to an MTF?
- How do testing rates of the eligible population compare to rates noted for health plans reported in the Health Plan Employer Data and Information Set (HEDIS)?

The present study is a follow-up to the 2001 National Quality Management Program (NQMP) Scientific Advisory Panel approved study. The 2001 study measured cervical cancer screening rates for all women enrolled to an MTF using available electronic health

data and standardized definitions across the MHS. The major changes in the 2002 study are the rigorous adherence to the HEDIS continuous enrollment requirement for study cohort members and the use of Pap test laboratory data as a proxy for cervical cancer screening.

### *What was the methodology?*

The study was conducted using a modified HEDIS methodology. The numerator was based on HEDIS hybrid specifications and included administrative laboratory data for Pap tests as the indicator for cervical cancer testing. The study population consisted of women continuously enrolled to an MTF between April 1, 2001 through March 31, 2002. Pap testing data were collected for the period April 1, 1999 through March 31, 2002.

Pap testing rates were recalculated for the study population using the ICD-9-CM procedure code, V72.3, which includes a Pap test when a gynecological exam is performed.

### *What were the results?*

Overall, 546,206 MTF-enrolled women were identified from Direct Care and Purchased Care visits data for inclusion in the study. The cohort was predominantly Non-Active Duty (NAD) enrollees (87 percent). The majority were enrolled to Air Force MTF sites (50 percent), followed by Army (30 percent) and Navy (20 percent) MTF sites.

Pap testing rates varied by Military Services, ranging from 71 percent for cohort members enrolled to an Air Force MTF to 64 percent for cohort members enrolled to Navy and Army MTFs (Figure 1). None of

1. The first part of the report is a general introduction to the subject of the study.

2. The second part of the report is a detailed description of the methods used in the study.

3. The third part of the report is a discussion of the results of the study.

4. The fourth part of the report is a conclusion and a list of references.

5. The fifth part of the report is a list of appendices.

6. The sixth part of the report is a list of figures and tables.

7. The seventh part of the report is a list of abbreviations and symbols.

8. The eighth part of the report is a list of footnotes.

9. The ninth part of the report is a list of references.

10. The tenth part of the report is a list of appendices.

11. The eleventh part of the report is a list of figures and tables.

12. The twelfth part of the report is a list of abbreviations and symbols.

13. The thirteenth part of the report is a list of footnotes.

14. The fourteenth part of the report is a list of references.

15. The fifteenth part of the report is a list of appendices.

16. The sixteenth part of the report is a list of figures and tables.

# CHILDHOOD IMMUNIZATION IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*"Enrollment sites throughout the MHS, regardless of Service affiliation, are performing very well. At the All Military Treatment Facility (MTF) level, immunization rates were highest for the following vaccines: Measles-Mumps-Rubella (MMR) (93 percent), Poliovirus (86 percent), and Diphtheria-Tetanus-Pertussis (DTP) (81 percent)."*

### Why study Childhood Immunization Rates?

Immunization is one of the most cost-effective health interventions available for preventing disease, disability, and death; since the early 1970s, the overall number of children who contract preventable diseases has decreased by 99 percent (American Academy of Pediatrics, 2001). The Department of Defense (DoD), in recognition of the efficacy of this intervention, adopted the Centers for Disease Control and Prevention (CDC) immunization practice standards as its own. In accordance with CDC recommendations, the DoD currently includes immunizations for tetanus, diphtheria, pertussis, poliomyelitis, mumps, measles, rubella, influenza, pneumococcal disease, Haemophilus Influenza type b, hepatitis A, hepatitis B, and varicella, as part of the TRICARE Standard Clinical Preventive Services (CPS) benefit package (TRICARE Management Activity, 2002).

### What was the Methodology?

To establish DoD baseline immunization rates for the active duty dependents 19 through 35 months of age who are enrolled to an MTF, a mailed survey was developed for the study and sent to the parent or guardian who resided at the same address as the child in the study cohort. The survey was developed using the National Immunization Survey, a telephone survey with demonstrated reliability, as a model. Completed surveys were scanned into a database and analyzed to calculate immunization rates for individual and combined immunizations for several subgroups within the cohort.

### What were the Results?

Based on sample calculations, a sample of 21,716 was drawn from the population of 90,166 children who were active duty dependents and between the ages 19 months

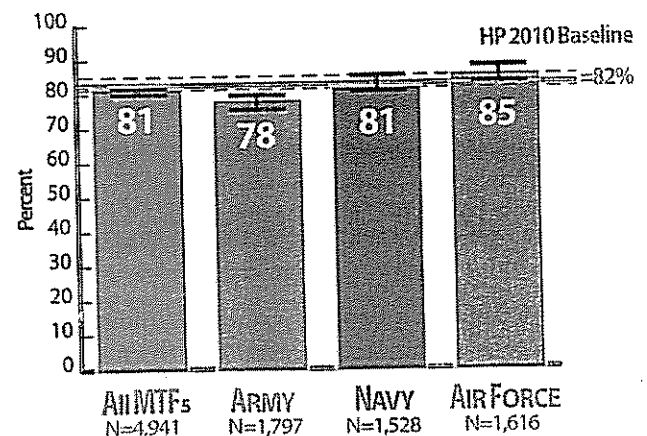
and 35 months as of September 1, 2001. The population was 49 percent female, 40 percent of which were enrolled to Army facilities, 30 percent to Navy facilities and 30 percent to Air Force facilities.

Of the 21,716 surveys mailed, 4,489 were returned with addresses that were not deliverable. Of the remaining 17,227 potential respondents, 12,240 did not return a survey. The final sample contained 4,941 responses for a return rate of 28 percent.

The final sample of respondents was similar to the overall population in terms demographic and enrollment characterization. Non-respondents were similar to respondents in terms of the same characteristics.

The All MTF rate of Diphtheria-Tetanus-Pertussis (DTP) vaccination of a full series of the DTP vaccine (four vaccinations) was 81 percent for an estimated 73,215 children out of 90,166 children receiving the full series (Figure 1). This vaccination rate was comparable to the Healthy People (HP) 2010 baseline rate of 82 percent but was below the HP 2010 goal of 90 percent.

**Figure 1: Immunization Rates, Diphtheria-Tetanus-Pertussis by Military Service Enrollment**



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# CHLAMYDIA TESTING FOR FEMALES IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*"The chlamydia testing rate among women 16 to 20 years of age enrolled to a Military Treatment Facility (MTF) was 34 percent overall, with a 41 percent Active Duty (AD) test rate and a 31 percent Non-Active Duty (NAD) test rate. The chlamydia testing rate among women 21 to 26 years of age was 28 percent overall, with a 36 percent AD testing rate and a 24 percent NAD testing rate."*

### Why Study Chlamydia testing?

Chlamydia infections are widespread among sexually active adolescents and young adults. These infections usually do not produce early symptoms, and if untreated can lead to serious health problems such as pelvic inflammatory disease, ectopic pregnancy, and infertility. The Department of Defense (DoD) Military Health System (MHS) adopted a chlamydia testing policy, incorporating elements of the Centers For Disease Control and Prevention (CDC) and the U.S. Preventive Services Task Force (USPSTF) recommendations. In anticipation of the DoD and the Department of Veterans Affairs (VA) releasing Health Promotion and Disease Prevention Indicator guidelines that include chlamydia screening, the National Quality Management Program (NQMP) Scientific Advisory Panel (SAP) approved a study of chlamydia testing in the MHS.

### What was methodology?

The study was conducted using a modified Health Plan Employer Data and Information Set (HEDIS) methodology. An eligible cohort of sexually active MTF-enrolled women 16 to 26 years of age was defined for a one-year period ending March 31, 2001. Sexual activity for women 16 to 20 was based on pharmacy and/or claims data for dispensed prescription contraceptives between April 1, 2000 and March 31, 2001. All women 21 to 26 were included in the study, regardless of contraceptive history. MTF laboratory tests and visit data, reference laboratory data, and network claims were examined to capture all available chlamydia tests. Rates were reported by demographics, duty status, and organizational level.

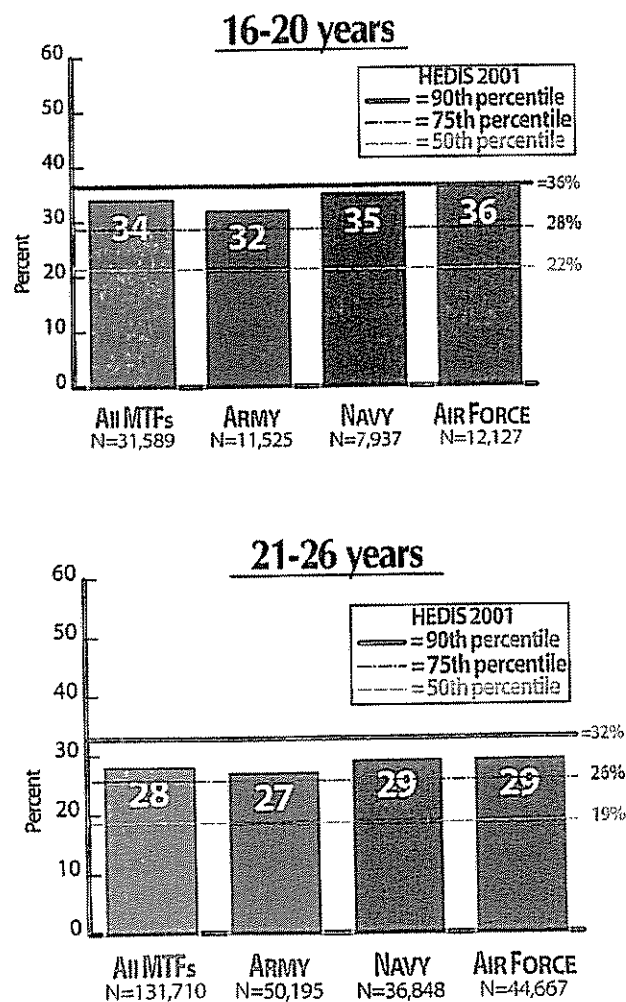
### What were the results?

The eligible study cohort contained 163,299 MTF continuously enrolled women. Nineteen percent of

the women were in the 16 to 20 year age group. One-third of the group were active duty.

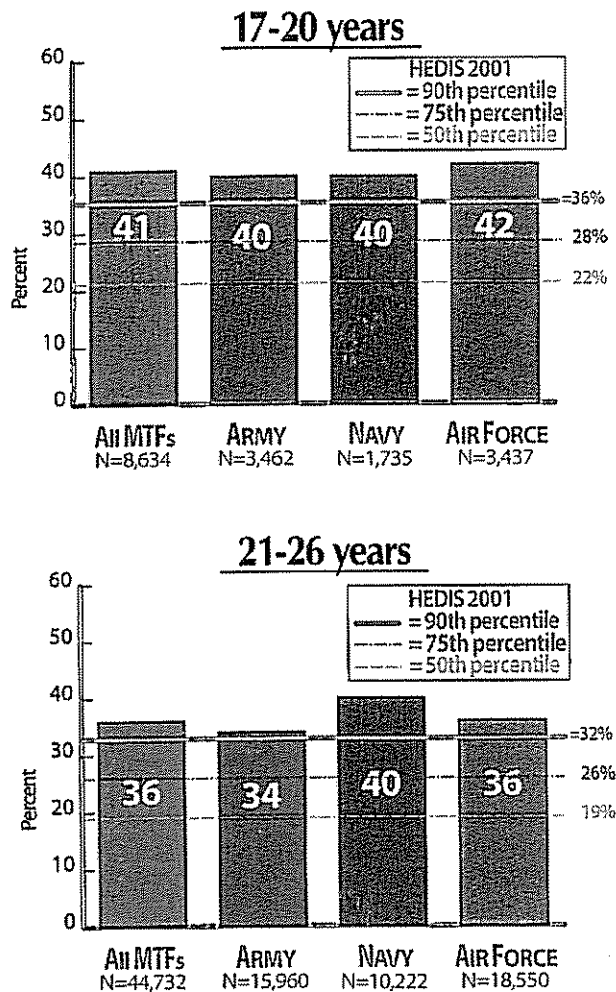
The overall testing rate for the 16 to 20 age group was 34 percent, while for women 21 to 26 the rate was 28 percent (Figure 1). These testing rates exceeded the HEDIS 75th percentile benchmarks for both groups.

**Figure 1: Chlamydia Testing Rates Among MTF Enrollees**

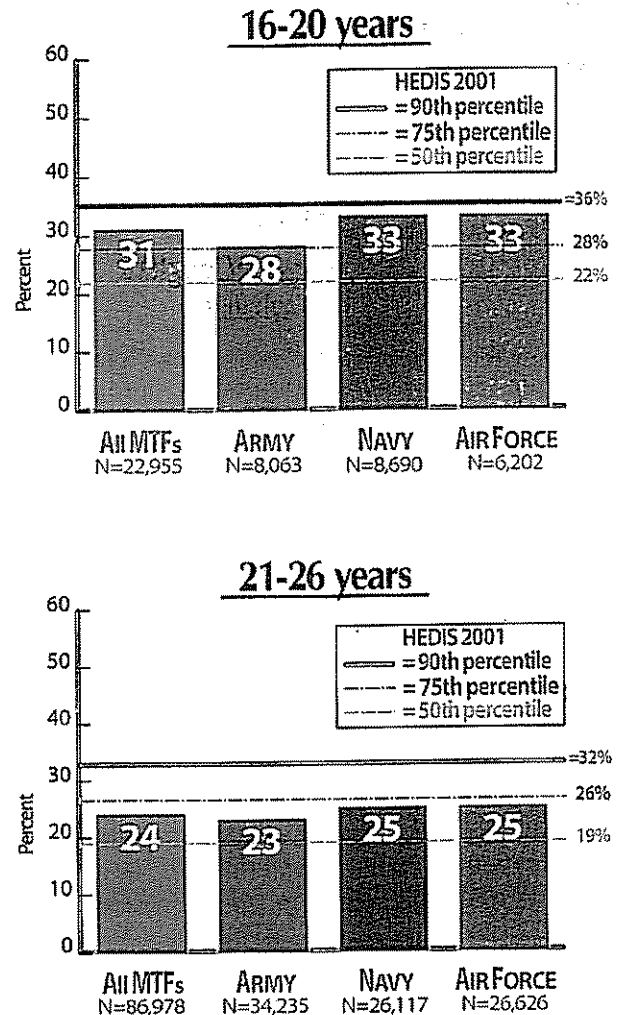


Testing rates for AD women were higher than testing rates for NAD for both age groups (Figures 2 and 3). The AD rates exceeded the HEDIS 90th percentile benchmark for both age groups. NAD rates exceeded the HEDIS 50th percentile benchmark for both age groups.

**Figure 2: Chlamydia Testing Rates Among Active Duty MTF Enrollees**



**Figure 3: Chlamydia Testing Rates Among Non-Active Duty MTF Enrollees**



### Conclusions

- Younger women had a higher testing rate than the older women.
- Testing rates among AD women were generally higher than the rates among NAD women.
- The majority of the testing rates among AD women, regardless of age group, exceeded the HEDIS 90th percentile chlamydia testing rate.
- The majority of the testing rates among NAD women were greater than HEDIS 50th percentile chlamydia testing rate.

## *Study Limitation*

This study was conducted using modified HEDIS specifications. Therefore, the results may not be comparable to rates based on other methodologies.

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# DEPRESSIVE DISORDER TREATMENT IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*"The MHS exceeds the National Committee for Quality Assurance (NCQA), Health Plan Employer Data and Information Set (HEDIS) 90th percentile on all antidepressant medication management metrics."*

### Why study Depression?

Depression is expected to be the second leading cause of disability worldwide in the 21st century (Wells et al., 2000). Depression affects one in ten Americans every year (Rubenstein et al., 1999). Due to the prevalence of depression in the United States population, this disorder will likely be encountered at all levels of the health care system, in both military and civilian facilities.

In September 2002, the Department of Defense (DoD) implemented Version 2.0 of the Major Depressive Disorder Clinical Practice Guideline (CPG) in the Military Health System (MHS) (VHA/DoD, 2002).

The purpose of this study was twofold. First, the study obtained baseline measurement rates for metrics developed with the Major Depressive Disorder CPG (the diagnosis codes for depression included non major depression diagnoses). Because electronic administrative data were used, only two of the four VHA/DoD Performance Measures for the Management of Major Depressive Disorder in Adults were examined. The Detection (screening metric) and the Effectiveness/Outcome metrics would have required data available through chart abstraction. The Assessment/Diagnosis metric and the Treatment metric provided an evaluation of the performance of the Direct Care System (DCS) prior to implementing Version 2.0 of the CPG. Second, the study measured Antidepressant Medication Management using Health Plan Employers Data and Information Set (HEDIS) 2002 Technical Specifications. MHS performance rates were compared to rates from HEDIS civilian managed care plans.

### What was the methodology?

This study uses two measures from the VHA/DoD Performance Measures for the Management of Major Depressive Disorder CPG and a measure from the HEDIS 2002 Technical Specifications. The measures were:

1. CPG Assessment/Diagnosis Measure
2. CPG Treatment Measure
3. HEDIS Antidepressant Medication Management
  - a. Optimal Practitioner Contacts
  - b. Effective Acute Phase Treatment
  - c. Effective Continuation Phase Treatment

An overview of the methodology and the results are described below.

### Measure 1 – CPG Assessment/Diagnosis Measure

The CPG Assessment/Diagnosis Measure included beneficiaries:

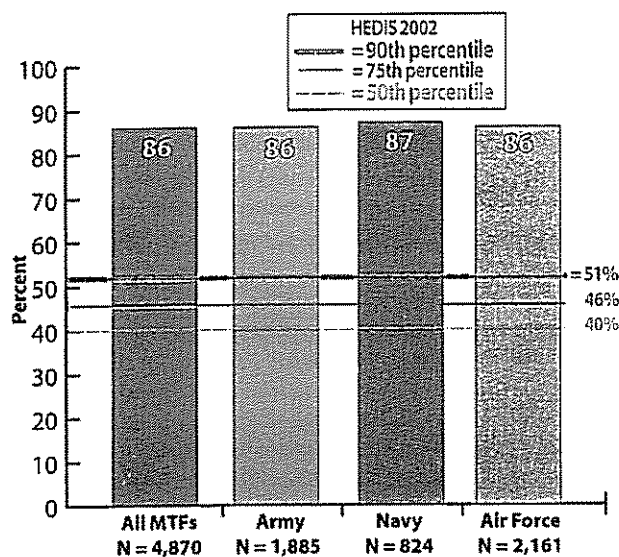
- Age 18 or older, or Active Duty (AD)
- With one or more visits to a Military Treatment Facility (MTF) primary care clinic during 2001. The Scientific Advisory Panel (SAP) modified the three visit requirement in the Performance Measure to one visit.

The Assessment/Diagnosis measure was defined as the percentage of beneficiaries in the study population with a principle or secondary diagnosis of depression in a primary care or behavioral health clinic.

**Results.** Depression was diagnosed in 4.0 percent of the beneficiaries seen in an MTF primary care clinic. Among these beneficiaries, women were diagnosed at a rate of 6.7 percent while men were diagnosed at a rate of 1.9 percent. Non-Active Duty (NAD) beneficiaries had a rate of 5.7 percent, while AD beneficiaries had a rate of 2.2 percent. The highest rate by age group was for the 45 to 64 group at 5.5 percent, while the youngest age group, 17 to 24 years, had the lowest rate at 2.5 percent (Table 1).



**Figure 4. Effective Continuation Phase Antidepressant Medication: 180 Days Supply Filled**



### Conclusions and Recommendations

- CPG defined depression treatment is largely met through the use of medication
- MTF enrollees' Antidepressant Medication Management compares favorably to the top 10 percent of managed care HEDIS reporting plans, but in the case of Optimal Practitioner Contacts still seems too low at an MHS rate of 34 percent.
- There were significant differences in depression diagnosis and treatment based on duty status and gender.

Based on the results of the 2002 study, the following actions should be considered:

- Conduct a follow-up study on guideline adherence one year after implementing the CPG
- Conduct a follow-up study that includes the CPG Detection and the CPG Effectiveness/Outcome measures
- Study the reasons for the low rate of Optimal Practitioner Contacts

### Study Limitations

- This study did not explore depression screening in the MHS primary care system.
- The rate for depression may be higher than reported given that the denominator includes those not screened.
- The CPG Assessment/Diagnosis and the CPG Treatment measure were developed by the DoD and the VHA and are not comparable to any other organization.
- The HEDIS Antidepressant Medication Management Measure was based on HEDIS 2002 Technical Specifications. Therefore, results of this measure are not comparable to other studies using a modified HEDIS methodology.

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**THE UNIVERSITY OF CHICAGO**

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# DIABETES MELLITUS CARE IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*"Seventy-two percent of the population was tested for HbA1c. Sixty-three percent of the population's HbA1c tests were in control (less than 9.5 percent)."*

### *Why manage Diabetes?*

In the United States, an estimated 16 million people have diabetes. Approximately 200,000 deaths a year are attributed to diabetes (Vincor, 2001). Sequelae of diabetes can include blindness, renal failure, coronary heart disease, and microcirculatory problems (Andreoli, et al., 1997).

In 1999, the Department of Defense (DoD), in collaboration with Veterans Health Administration (VHA), developed Clinical Practice Guidelines (CPG) for diabetes mellitus (The Management of Diabetes Mellitus Working Group, 1999). The CPG, containing guidelines similar to those recommended by the Diabetes Quality Improvement Program (DQIP), encompassed patient management such as glycemic control, evaluation of the eyes and feet, and early recognition and treatment of co-morbid conditions including hypertension, hyperlipidemia, and renal disease.

In June 2001, the guidelines were adopted by DoD. In that same year, the National Quality Management Program (NQMP) Scientific Advisory Panel (SAP) commissioned a study of diabetes in the MHS. The study adapted, where possible, the methodologies used by the National Committee for Quality Assurance (NCQA) Health Plan Employer Data and Information Set (HEDIS). Compliance levels for five of the ten DoD/VHA CPG metrics were measured and compared with the HEDIS percentiles for commercial health plans.

Across all Military Treatment Facilities (MTFs), study results indicate compliance to the diabetes CPG metrics was very similar to levels of compliance noted for DQIP measures both in content areas and recommended target values. Specifically, the MHS exceeded the HEDIS 90th percentile on all measures except LDL-C compliance.

The 2002 study reexamines 2001 measures and adds compliance with recommended microalbumin testing. The 2002 study also includes the additional criteria of continuous enrollment to an MTF and the inclusion of beneficiaries who had a prescription for insulin, oral hypoglycemic or antihyperglycemics.

### *What was the methodology?*

The study was conducted using HEDIS 2002 Technical Specifications for the Comprehensive Diabetes Care measure. The specifications were implemented as written and no modifications were made. The measure consists of six separate rates for a defined population of people with diabetes. These rates can be used to estimate compliance with CPG recommendations for diabetes care. Electronic medical record data from January 1, 2001 through December 31, 2001 were used to calculate the rates.

MTF continuously enrolled beneficiaries, age 18 to 75, with a primary diagnosis of diabetes were identified as having one or more of the following:

- Received an insulin and/or oral hypoglycemics/antihyperglycemic prescription in 2000 or 2001
- Two outpatient visits with a primary diagnosis of diabetes identified in 2001
- One inpatient hospital or emergency room visit in 2001

### *What were the results?*

During the study period, 49,164 diabetics continuously enrolled to an MTF were identified from direct care and purchased care visits and prescription records using HEDIS methodology. Slightly more females (55 percent) than males (45 percent) were present in the cohort. Four in five cohort members were 45 years of



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# MANAGEMENT OF DYSLIPIDEMIA IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*"The outcome measure for dyslipidemia management, the percentage of the population with in control of Low-Density Lipoprotein Cholesterol (LDL-C) levels, is the ultimate indicator of successful disease management. For the study population, 64 percent had a LDL-C level that was in control. This percentage was between the 50<sup>th</sup> and 75<sup>th</sup> percentile of performance for managed care plans reporting the National Committee for Quality Assurance (NCQA), Health Plan Employer and Information Set (HEDIS) measure."*

### Why manage Dyslipidemia?

High blood cholesterol levels, specifically high levels of Low-Density Lipoprotein Cholesterol (LDL-C), are an important and modifiable risk factor for developing Coronary Heart Disease (CHD) and for increased mortality among individuals with diagnosed CHD. CHD continues to be the leading cause of death in the United States. The Department of Defense (DoD), in collaboration with the Veterans Health Administration (VHA), has developed a clinical practice guideline (CPG) for the prevention and management of high blood cholesterol. The guideline was available for use in December 2001.

The purpose of this study was to measure baseline adherence to the VHA/DoD CPG For The Management of Dyslipidemia In Primary Care prior to implementation, answering the following questions:

1. What percentage of eligible Medical Treatment Facility (MTF) enrollees with an elevated LDL-C and a diagnosis of CHD received antihyperlipidemic medications?
2. What percentage of eligible MTF enrollees had at least one LDL-C level within standard levels of control between 60 and 365 days following an inpatient admission for an acute cardiovascular event?

These questions were examined for the defined population by enrollment MTF service affiliation, gender and duty status.

### What was the methodology?

#### Measure 1 - Antihyperlipidemic Medication Treatment Rate

The first measure, medication treatment for beneficiaries with an elevated LDL-C, included beneficiaries:

- Age 18 to 75 years
- Continuously enrolled to an MTF
- One or more visits to a primary care or cardiology clinic for CHD during 2001
- LDL-C  $\geq$  120 mg/dl during 2001

Prescriptions for antihyperlipidemic medications written within 30 days after the date of the elevated LDL-C were identified for this population. Medication treatment rates were calculated for subgroups of this population.

#### Measure 2 - LDL-C Screening and Control Following an Acute Cardiovascular Event

The second measure, LDL-C screening and control following an acute cardiovascular event, included beneficiaries:

- Age 18 to 75 years
- Hospitalized in an MTF for an Acute Myocardial Infarction, Coronary Artery Bypass Graft or Percutaneous Transluminal Coronary Angioplasty during 2000
- Continuously enrolled to an MTF for 12 months after discharge

## Conclusions and Recommendations

- Care for beneficiaries in the DCS with dyslipidemia compares favorably with other health plans for LDL-C control.
- There were differences in the health care beneficiaries with dyslipidemia received based on duty status and gender.
- The DCS population with CHD represents a small portion, < 0.5 percent, of the MTF enrolled population.

Based on the results of the Fiscal Year 2002 study, the following actions should be considered:

- Implement the VHA/DoD Clinical Practice Guideline For The Management of Dyslipidemia In Primary Care throughout the DCS aggressively.
- Conduct a follow-up study on guideline adherence after at least one year of CPG implementation.
- Study the differences in health care based on duty status and gender in greater detail to explain factors that contribute to the differences reported in this study.
- Study provider and organizational (system) differences that affect patient care measurement and guideline adherence.

## Study Limitation

This study was conducted using modified HEDIS methodology. Lab data were only available for July 2000 through September 2002. The results may not be comparable to studies based on exact HEDIS methodology.

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# POST-DEPLOYMENT HEALTH CARE EVALUATION AND MANAGEMENT IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*"The Post-Deployment Health (PDH) Care Evaluation and Management Clinical Practice Guideline (CPG) was implemented in February 2002. Over 75 percent of surveyed Military Treatment Facilities (MTFs) have implemented the CPG."*

### *Why study Post-Deployment Health care?*

The Post-Deployment Health guideline addressed the Department of Defense (DoD) need for a uniform approach to identifying health conditions among all beneficiaries with deployment-related concerns. The purpose of this study was to examine early implementation of this important CPG. The study focused on three areas of implementation:

1. Implementation at the MTF primary care clinic level
2. Implementation in the Outpatient Record
3. Implementation electronically in the Standard Ambulatory Data Record (SADR)

### **Measure 1 – Implementation in MTF Primary Care Clinics**

#### *What was the methodology?*

The study population included all MTFs with a parent Defense Medical Information System (DMIS) Identification (ID) code. All MTF Post-Deployment Health CPG points of contact (POCs) were sent an e-mail request to participate in a web based implementation survey. Implementation was defined as answering yes to any of the six questions in the survey. The survey was conducted between October 1, 2002 and December 6, 2002.

#### *What were the results?*

The survey was sent to the Post-Deployment Health Care CPG POC at 139 MTFs of the 146 MTFs with a parent DMIS ID designation. Seven MTFs were excluded from the mailing because there were no identified POCs. Fifteen MTFs were excluded from

the final analysis due to incorrect addresses that could not be resolved, leaving a final survey population of 124 MTFs.

One hundred and seven MTFs (86 percent) responded to the Survey. Over 90 percent (n=97) of the respondents reported implementing at least one component of the CPG process. Almost 40 percent of respondents (n=40) reported implementing all components of the CPG process.

**Figure 1: PDH CPG MTF Implementation Survey Results by Number of Components Implemented (Six Total Implementation Components)**

Implementation Results	Total
MTFs Surveyed	139
MTFs Responding To Survey	107
MTFs Implementing 1 or more CPG Components	97
MTFs Implementing 2 or more CPG Components	88
MTFs Implementing 3 or more CPG Components	83
MTFs Implementing 4 or more CPG Components	79
MTFs Implementing 5 or more CPG Components	67
MTFs Implementing all CPG Components	40

### **Measure 2 – Implementation in Outpatient Records**

The study population included a convenience sample of outpatient records that were abstracted at selected

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# TOBACCO USE CESSATION IN THE MILITARY HEALTH SYSTEM (MHS)

## A National Quality Management Program Special Study

*"Nineteen percent of study respondents were smokers. Fifty-two percent of smokers were advised to quit on one or more occasion."*

### Why study Tobacco Use Cessation?

Despite widespread knowledge of the hazards associated with tobacco use, smoking is common among the United States adult population. More than 25 percent of adults continue to smoke, while the Department of Defense (DoD) Survey of Health-Related Behaviors Among Military Personnel reported the prevalence of cigarette smoking among military personnel to be about 29 percent (DoD, 1998).

Tobacco use and its associated health and economic burdens are growing concerns worldwide. In the U.S., cigarette smoking is the single most preventable cause of disease, disability, and death. Smoking is responsible for 87 percent of lung cancer cases and for most cases of emphysema and chronic bronchitis. (CDC, 2002). In addition to the proven health risks to smokers, exposure to passive cigarette smoke is associated with elevated risks of cancer, coronary heart disease, and other diseases (EPA, 2002).

### What was the methodology?

Using data from the 2001 fourth quarter Health Care Survey of DoD Beneficiaries (HCSDB), this study examined the self-reported rate of smoking and the rate of smokers being advised to quit smoking by a health care provider. Although the HCSDB used the Consumer Assessment of Health Plans (CAHPS®) 2.0H items for smoking cessation, the survey administration protocol was not the same as specified in the HEDIS 2002 Technical Specifications. Therefore, external benchmarks were not available for comparison.

### What were the results?

Nineteen percent of survey respondents reported to be current smokers with 14 percent reporting daily use of cigarettes. In comparison, similar studies suggest

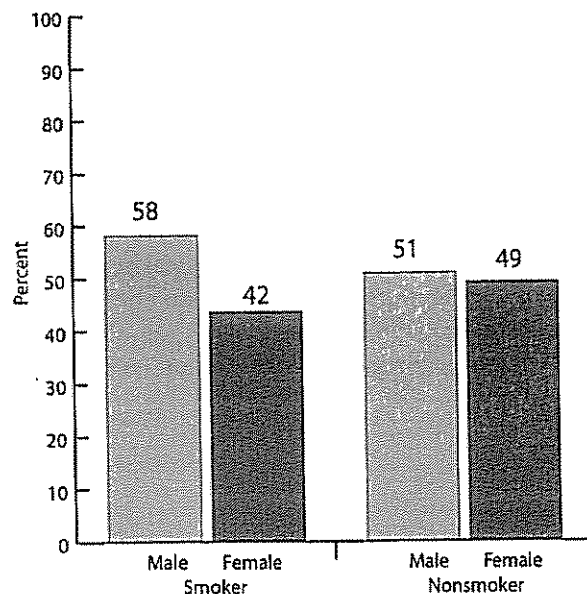
smoking rates of approximately 25 percent for the general population. Results were also compared for gender, age, and race differences.

Approximately 50 percent of the cohort reported smoking at some time in their lives. Only 30 percent had quit, most over a year ago. Additionally, 20 percent of smokers had not visited a clinic in the past year. Slightly more than half of the approximately one million smokers were estimated to have been advised to quit on at least one health care visit in the past 12 months. Additional details by gender, age and race are below.

#### GENDER

- Fifty-eight percent of smokers were male, in comparison to 51 percent of the non-smoker group (Figure 1).
- Forty-four percent of beneficiaries advised to quit were women. In comparison, 40 percent of the group not advised to quit were women (Figure 2).

Figure 1: Smokers vs. Nonsmokers by Gender



- The MHS could consider contacting successful quitters and recruiting them as mentors for persons trying to give up tobacco products.
- Redesign HCSDB survey questions to better capture required information regarding all forms of tobacco use and efforts to help individuals to stop using this substance.
- Restudy tobacco use, prevention and cessation efforts within the DoD after the redesigned collection instrument is fielded. This study should measure the effectiveness of clinical practice guideline (CPG) implementation and progress toward the CDC goals listed above.

### Study Limitations

- The survey dataset included only general questions about cigarette smoking and did not address use of other tobacco products.
- While the survey did ask respondents whether they were advised to quit smoking during the previous year, it did not ask respondents to specify in what context that advice was given.
- Study results are not comparable to NCQA HEDIS benchmarks. Although the study items were taken from the Consumer Assessment of Health Plans® 2.0H survey, the survey was not administered using HEDIS protocols. Secondly, this study examined all smokers regardless of enrollment status. Finally, HEDIS defined smokers included beneficiaries who were either self-reported current smokers or recent quitters (of less than 12 months duration); while in this study, the cohort included only self-identified current smokers.

### References

- CDC, Global Tobacco Prevention and Control. Available at: [www.cdc.gov/tobacco/global/overview.htm](http://www.cdc.gov/tobacco/global/overview.htm)
- DoD, 1998 Department of Defense Survey of Health-Related Behaviors Among Military Personnel. Available at: [www.tricare@osd.mil](http://www.tricare@osd.mil)
- EPA, Indoor Air—Second Hand Smoke. Available at: [www.epa.gov/iaq/pubs/etsbro.htm](http://www.epa.gov/iaq/pubs/etsbro.htm)

USPHS, Achievements in Tobacco Cessation: Case Studies: June 2000. Available at: [www.surgeongeneral.gov/tobacco/smcasest.htm](http://www.surgeongeneral.gov/tobacco/smcasest.htm)

### Where to go for more information?

Army: **COL Stacey Young-McCaughan**  
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# Population Health Operational Tracking and Optimization

## PHOTO Sample Reports

Asthma Management (Continuous Enrollment)

Breast Cancer Screening (Continuous Enrollment)

Cervical Cancer Screening (Continuous Enrollment)

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## Military Health System Health Care Innovations

Innovations across the Military Health System during 2002 span a wide spectrum of opportunities to improve individual care experiences and the overall population health of all those for whom we offer health care. These innovations were exhibited in a poster session at the 2003 TRICARE Conference. In addition, the complete abstracts are posted on the TRICARE website of the Chief Medical Officer at <http://www.tricare.osd.mil/OCMO> at the Healthcare Innovations site. This site also contains the archives of previously submitted innovations.

The following nine categories capture the majority of the innovations developed by individuals, clinical departments, hospitals and clinics. Many of these innovations represent creative approaches to longstanding challenges in making the most of our resources and in truly meeting the needs of our patient population, active and retired members and their families.

Subject of Innovation	Command Sponsor
<b>Improvement in Clinical Care</b>	
Shared Medical Appointments for weight management for active duty members	Keesler Air Force Base
Shared Medical Appointments – Drop-in Group Medical Appointments (DIGMA)	Eglin Air Force Base Keesler Air Force Base
Open access clinic	Hill Air Force Base
Direct access in Family Practice Clinic	U. S. Air Force Academy, CO
Pharmacy Dispensing for After Hours Clinic or Emergency Department	Army Medical Center, Ft. Carson, CO
Over the Counter Medication	U. S. Naval Hospital Keflavik, Iceland
Protocol Driven Pharmacy Refill Clinic	U.S. Naval Hospital Keflavik, Iceland
Model Breast Cancer Care	Naval Hospital Lemoore, CA
Team Approach to Quality Breast Care – Gail Model Risk Assessment	Naval Hospital Bremerton, WA
Model Ambulatory Procedures Unit	U.S. Naval Hospital, Okinawa, Japan
Breast Cancer Risk Screening	Naval Hospital Bremerton, WA

Deployment Stress Kits	Seymour Johnson AFB, NC
Army Plan for Wellbeing	Army Office of the Surgeon General
<b>Staff Education</b>	
Medical Simulation System Evaluation Combat Trauma Patient Simulator	Simulation and Training Command, Orlando, FL
<i>e-Health</i>	Navy Environmental Health Center, Portsmouth, VA
Basic Disaster Life Support and Advanced Disaster Life Support Training, and Combat Trauma Patient Simulator	Center for Total Access, Ft. Gordon, GA
Chemical, Biological, Radiation, Nuclear and high-yield Explosives (CBRNE) Readiness Training	Naval Hospital Bremerton, WA
Population Health Informatics Training	TRICARE Mid-Atlantic Lead Agent, Norfolk, VA
Dr. Armstrong drills to ensure safe therapeutic physical restraint	Naval Hospital, Rota, Spain
<b>Automation to support documentation of care, to improve data quality for analysis, and improve retrieval for communication across providers</b>	
Organizational transformation through modeling of population health status of a given region and determining appropriate healthcare staffing and other resources	U.S. Army Medical Command, Ft. Sam Houston, TX
Tracker for Patient Queries	Sierra Military Health Services, Baltimore, MD
Medical Record tracker	U. S. Air Force Base Aviano, Italy
Online Referral Request Form	Sierra Military Health Services, Baltimore, MD
Orders, Referral and Authorization electronic tracker	Sierra Military Health Services, Baltimore, MD TRICARE Southwest Lead Agent, San Antonio, TX
Managed Care Optimization and analysis tool for EUROPE and workload data	TRICARE Europe Lead Agent, Sembach AFB, Germany
Automated Medical Surveillance & Electronic Laboratory Surveillance	Navy Environmental Health Center, Norfolk, VA
Teledermatology	TRICARE Southeast Region Lead Agent, Fort Gordon, GA